

Heterogeneity in Residential Group Composition:

**Continued Investigation in and near Caracol's Epicenter:
Caracol Archaeological Project Investigations for 2011**

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Report Prepared for the Belize Institute of Archaeology

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The 2011 season of the Caracol Archaeological Project concluded research project initiated during the 2009 and 2010 field seasons. Archaeological research had three primary foci:

- (1) investigating variability in Terminal Classic Period occupation to refine interpretations of the Classic Period collapse and abandonment of Caracol, concluding a 3-year research package on this topic;
- (2) completing the investigation of the Alta and Baja Vista residential complexes and situating this compound relative to other adjacent residential groups; and,
- (3) ground-truthing distinct features identified in the analysis of the LiDAR-based Caracol digital elevation model to further assess the reliability and value of LiDAR data for making interpretations about the ancient Caracol landscape.

Additionally, there was a fourth focus to the season:

- (3) working in conjunction with the Institute of Archaeology to ensure the stabilization of the Northeast Acropolis that had been excavated during the 2009 and 2010 field seasons.

As was the case for the past two field seasons, support for excavations undertaken during the 2011 field season was provided by: the Alphawood Foundation; , the Geraldine and Emory Ford Foundation, the Harrison Fund, a NASA grant; the UCF Trevor Colbourn Endowment; and donations to the University of Central Florida.

Terminal Classic Variability

The three-year research design that was established for the 2009, 2010, and 2011 field seasons called for extensive excavation in the Northeast Acropolis and in residential groups located at the western extent of the site epicenter. The overarching goal was to examine ceramic diversity in the Terminal Classic Period at Caracol by first confirming that the Northeast Acropolis participated in the highest-

status, epicentral “palace” ceramic sub-complex during this time period and, then, by ascertaining the extent to which this palace ceramic sub-complex was in use by contemporary high-status residential groups located close to the epicenter. Towards this end, excavations were carried out in the Northeast Acropolis during 2009 and 2010 that, indeed, confirmed the use of the palace ceramic sub-complex in this architectural complex. During 2010, excavations were also initiated in the double-plaza residential unit containing Structures F30-F42, colloquially referred to as “Alta/Baja Vista.”

During the 2011 field season, excavations continued in the Alta/Baja Vista residential unit and also extended into three neighboring residential units, two of which previously had been briefly investigated by the project. The Ramon Group had seen the investigation of a looted tomb during the 1995 and 2001 field seasons (Structure F21). The North Group had seen excavation of Structures F2 and F4 during the 1986, 1991, and 2002 field seasons. The group intermediate to the North and Ramon Groups, called the Chalpat Group, had not previously been excavated. Taken as a whole, these residential investigations permit a better understanding of Terminal Classic occupation, ceramic sub-complexes, and household status at Caracol, as well as allow insight into the long-term development of residential complexes at the western extent of the Caracol epicenter.

In addition to the western investigations, the 2011 field season also undertook additional investigation of Structure A1, focusing on the previously unexcavated summit of the structure. Investigations at the base and rear of Str. A1 had provided evidence of use during the Early Classic and early Late Classic Periods. While other structures in the Caracol A Group were similarly used and constructed by the Early Classic or early Late Classic Period, all of the major buildings excavated in this architectural complex have also yielded evidence of Terminal Classic use. Thus, the further investigation of Structure A1 hoped to garner further information about the final occupation of epicentral Caracol, thereby more fully grounding our understanding of the western part of the Caracol epicenter.

Background of 2011 Research: Interpreting the “Collapse” and Household Variability

The research design for the 2009, 2010, and 2011 seasons focused on ceramic variability in the Caracol archaeological record at the time of the Maya collapse (see Aimers 2007 for a comparative

statement) – and on the implications of ceramic distributions. Excavations in the epicentral palaces had established that Terminal Classic reconstructable pottery vessels and other artifactual items occurred on the interior floors of these stone buildings and in their immediate exterior areas (A. Chase and D. Chase 2004, 2005, 2007, 2009). In conjunction with the discovery of an unburied child's body within one of the residential rooms of one of these palaces on the summit of Caana, these data suggested that epicentral Caracol was abandoned fairly rapidly (D. Chase and A. Chase 2000). Radiocarbon dates from various burnt palace rooms in the epicenter all cluster around A.D. 895 for this abandonment (A. Chase and D. Chase 2004). The ceramic materials found in the epicentral palaces and buildings are fairly consistent in terms of their pottery types and forms, but this sub-complex is not generally represented in the excavated residential plaza groups (A. Chase and D. Chase 2005). These differential pottery distributions during the Terminal Classic have led us to conclude that the ceramics associated with the epicentral buildings represent a status-linked sub-complex and that the elite living in the epicentral palaces used different pottery than the rest of Caracol's population during the Terminal Classic Period (A. Chase and D. Chase 2004). The unanswered questions were the full areal extent of the Terminal Classic elite population and the degree to which this dichotomous ceramic distribution would be found in the non-epicentral portions of the site. In order to assess this problem, a two-pronged approach was designed for testing over 3 years. First, an unexcavated epicentral elite complex, the Northeast Acropolis, was investigated; the excavations here did indeed recover the elite pottery sub-complex. Second, residential areas that could be correlated with very high status (but not royal) and possibly even a "secondary elite" (A. Chase and D. Chase 1992:11) were identified just beyond the epicentral limits and were targeted for extensive investigation in order to determine if - and how - the elite pottery sub-complex had permeated this level of Caracol society. Toward this end, excavations took place in the Alta/Baja Vista residential groups in 2010 and were continued during 2011.

The 2010 excavations in the Alta/Baja Vista residential group suggested that a very structured relationship existed between the primary and secondary elites of Terminal Classic Caracol. While Terminal Classic materials and deposits were recovered in this residential compound, the palace ceramic

wares found on the floors of epicentral palaces were not, demonstrating that different – but contemporary – ceramic materials were in fact being used by high status households. These same investigations also served to highlight intra-site differences within Caracol and the household variability that existed in these residential units. This variability was worthy of further research and, toward this end, the 2011 excavations at Alta/Baja Vista serve not only to permit a full discussion about the relationship(s) between Caracol’s secondary and primary elite at the time of the “collapse,” but also to help better define ritual and household variability at the site. In conjunction with the 2010 excavation data, the Alta/Baja Vista excavations undertaken during 2011 also permitted a fairly complete understanding of the temporal growth and development of this large residential unit, suggesting temporal shifts within the unit itself. In order to better contextualize the patterns defined in Alta/Baja Vista, it was decided to investigate three neighboring plazuela groups to garner some understanding of what was presumed to be the fairly well-off neighborhood (e.g., Smith 2010) that would have existed on this elevated spine immediately west of the epicenter.

Caracol’s Western Residential Complexes

During the 2010 field season, a series of excavations were undertaken in the double-plaza residential group referred to as “Alta/Baja Vista” (see Figure 1). Specifically, 4 excavations were undertaken in Baja Vista (Structures F36, F39, F41, and a vacant terrain building identified in the plaza) and 1 excavation was undertaken in Alta Vista (Structure F33). These investigations did recover Terminal Classic deposits and also established a long occupation history for this group that goes back to the Late Preclassic Period. This research confirmed that the occupants of this double-plaza group did have access to a minimal amount of the high status Terminal Classic epicentral ceramic subcomplex, an observation that is in line with the original research proposal. During the 2011 field season, excavations were undertaken in one building in Baja Vista (Structure F38) and in two buildings in Alta Vista (Structures F34 and F35). Neighboring residential groups investigated during the 2011 field season provided additional context (see Figure 1). A looted tomb in the northern building of the Ramon Group (Structure F21) had already been investigated and placed this group within the appropriate timeframe

under review here. Excavation of the partially looted eastern construction, Structure F24, during 2011 did not recover the anticipated later remains, but did flesh out earlier residential patterns for this part of the site. A second residential group investigated during 2011 is located just north of Structure F21. While some of its archaeological remains date to the appropriate timeframe, for the most part these excavations produced data relevant to earlier time periods. The Northwest Group was also further examined during 2011; like the previous two groups, while it produced only a limited data base that had direct applicability to the research question, the investigations here were exceedingly useful in providing information on some of the earliest inhabitants of Caracol.

Northwest Group: Structures F2-F5

The Northwest Group is situated 500 m from the A Group on top of a hill that constitutes highest elevation west of the site epicenter. The siting of the architectural compound between two causeways suggests that it may have served a more public function – and the archaeological investigations that have been carried out provide supporting data. A broad causeway runs from the northwest corner of the A Group platform along the spine of a ridge spine west to the Northwest Group. The less-broad, long-distance Ceiba Causeway climbs up to join the Northwest Group on its western side. A large raised platform supports the four structures that comprise the Northwest Group (Figure 2). The western and eastern Structures F2 and F4 both rise over 3 meters above the summit plaza. The northern and southern Structures F1 and F3 are much lower, being no more than 1.5 m in height. During previous field seasons, excavations have been conducted on Structures F4 (during 1986; see also D. Chase and A. Chase 2003:270) and Structure F2 (during 1991 and 2002; see 2002 field report at www.caracol.org).

Investigation into the cores of both of these buildings revealed large constructions that were anomalous with more typical Caracol residential groups, suggesting that this complex possibly engaged in non-residential functions. No tomb was found in the eastern Structure F4, although several burials without grave goods were located beneath floors in the plaza in front of this structure and in the building fill itself. The western Structure F2 had produced an open rear tomb that had been desecrated in antiquity and then refilled with the partially articulated bodies of 24 individuals. The partial bodies, incomplete ceramic

vessels, and broken jadeite beads within this chamber were layered and burnt. The partial ceramic vessels in the chamber suggested that this event had occurred at the end of the Early Classic Period. Like F4, Structure F2 also had a burial without grave goods in the plaza directly in front of it and a human body that had been placed directly into the building fill beneath the stairway. In order to gain a better handle on the dating and function of this group, Structure F3 was selected for investigation; the poor condition of Structure F1 hastened this decision. An opportunistic investigation was also undertaken of a collapsed chultun located intermediate to Structure F1 and Structure F4. No materials related to the epicentral Terminal Classic palace ceramic sub-complex were recovered.

Structure F3 (Figures 2 and 3) is a long low building that, in its final phase, supported a perishable building that was set on masonry base walls. Based on surface measurements made before investigation, Structure F3 was approximately 20 m long by 6 m wide. Based on visible topography, its summit supported a three-roomed building. On the south side of the building, a broad stairway rose in three steps to provide access to the interior rooms; the floors of the interior rooms were approximately 1.2 m above the plaza. Structure F3 was selected for investigation with the hope that it might be analogous to Structures F21 or F36 and yield a tomb that would provide dateable material; this did not happen during the 2011 field season. However, a simple interment – without grave goods – was recovered on the plaza surface beneath the front stair. Ceramics from within the fill of the single phase construction that represents Structure F3 were late Late Classic in date, suggesting that this was when the building was erected.

Operation C79D (Figures, 4, 5, and 6) was a trench measuring 7.35 m north-south by 2 m east-west. Excavations at this locus revealed that Structure F3 was a late single phase construction that rested on the latest plaza floor for the Northwest Group. Excavations within the trench recovered three facings and the rear base wall for the building, all set over dry core fill; only the lower two stairs were bedded in a stone and dirt matrix. The base walls were approximately 0.5 m thick and the upper room had an interior space that was approximately 2 m in depth. The tread of each step fronting the building was approximately 1 m and the lower step had been constructed directly over the body of an individual that

had been placed on the plaza floor before the onset of construction. A deeper excavation in the plaza in front of the building revealed lensed fill, mostly consisting of limestone marl, without any formal floors or constructions. This fill extended almost 2.5 m below the plaza floor to bedrock. Sherds overlaying bedrock in the bottommost fill layer consisted exclusively of ceramics (Figure 7) dating to the Middle to Late Preclassic transition, indicating that construction at this locus commenced at an early date.

S.D. C79D-1 (Figure 6) was an interment recovered on the plaza floor beginning approximately 70 cm behind the lowest step along the western edge of the excavation. Only the skull of the individual was recovered, but it was possible to determine that it came from a single older adult female. Her mandible showed signs of resorption; all of her teeth appear to have been lost before death.

Northwest Plaza Chultun (Figure 2) was located intermediate to Structure F1 and F2. The collapsed area that comprised the chultun, measuring over 2 m in diameter at the surface, had been first noted in 1985. Because manpower was available and it would be a contained unit, it was selected for an opportunistic excavation toward the end of the field season. Elsewhere at Caracol, chultuns had proven to have been used for interments (Hunter-Tate 1994) and this was what this excavation was expected to produce. It did not disappoint for it produced a burial that dated to the Middle to Late Preclassic transition. Based on materials in its top layer, the chultun had been re-used in the late 20th century as a repository for glass bottles.

Operation C79E (Figures 8, 9, 10, 11, and 12) was the excavation carried out within the chultun. At the surface, the opening for the chultun measured 2.17 m east-west by 2.52 m north-south. At least two formal floors had once covered the now infilled and collapsed chultun. Once the uppermost collapsed rubble and humus had been removed, the matrix in the chultun was primarily tan-colored marl. The bottom of the chultun was reached approximately 3.2 m below the surface and was marked by human bone and ceramic vessels set upon a layer of large marbleized limestone slabs; a higher landing or bench made of similar stone was located on the northern side of the chamber. The maximum diameter of the chamber was 3.0 m east-west by 3.25 m north-south.

S.D. C79E-1 (Figures 10, 11, and 12) consisted of a burial set on top of the marbled limestone slabs that covered the bottom of the chultun. The human remains that were recovered from the chultun consisted of two individuals. One was a young adult male, who was set on the slabs in an extended and prone position with head to the east. The second adult individual was represented only by a set of lower legs set within the slabs themselves. The young male was accompanied by four ceramic vessels (Figure 13), perhaps the most impressive being a red chocolate pot located to the east of his head (Figure 13a). The chocolate pot may be identified as a type of Mars Orange Ware that is slipped a deep red and would be classified as Joventud Red within Yesoso Orange Paste-Ware in the Belize Valley (Ball and Taschek 2003). A chocolate pot of the same shape, dated to the Late Preclassic Period, has been illustrated from Pomona, Mexico (Sabloff 1998:60). Artifactual materials that accompanied the primary individual included a complete *spondylus* shell, a small jadeite pendent, and a stingray spine – along with pyrite inlays and other marine shell fragments (Figure 14). The presence of the imported chocolate pot, jadeite, *spondylus*, and a stingray spine all suggest the importance of the individual interred in the Northwest Chultun – clearly one of Caracol’s early elites.

Ramon Residential Group: Structures Structure F21-F30

Located at the tip of a ridge approximately 200 m south of the Northwest Group, the Ramon residential group commanded a view of all of southern Caracol (Figures 2 and 15). The eastern and northern buildings in Ramon both rose to height of 3 m above the accompanying plaza. The project had previously excavated a looted tomb in Structure F21, the northern building (see 2001 field report at www.caracol.org); this chamber was on axis to the building directly beneath the front step. Some 13 ceramic vessels and 5 individuals were associated with this chamber; the contents suggest a late Late Classic date for this tomb. Both the location and date of the Structure F21 tomb is analogous to one recorded in Structure F36 in Baja Vista during the 2010 field season. Structure F36 was a vaulted building and the surface dimensions and remains indicate that Structure F21 was likely vaulted as well. The taller eastern building in this group, Structure F24, has been axially looted prior to 1995. During the 2011 field season, the looter’s excavation was encompassed within an axial trench in hope that Structure

F24 would be able to serve as comparative data for Structure F39, its counterpart in Baja Vista. Neither the earlier nor the 2011 investigations in Ramon recovered any ceramics materials that could be related to the epicentral Terminal Classic palace ceramic sub-complex.

Structure F24 (Figures 15 and 16) is the large eastern structure in the Ramonal residential group. It had a gaping looters' hole on axis to its western site that penetrated the core of the building. The northern side of the Structure F24 substructure was well preserved, but no other architecture was in evidence before excavation. Excavation of the building produced evidence for at least 5 sequent constructions as well as a continuous sequence of use for this locus that ran from the Late Preclassic through the Late-Terminal Classic Periods. Three burials and two in situ caches were recovered through this investigation.

Operation C121C (Figures 17, 18, 19) was a trench laid directly on top of the looters' excavation (and encompassing it). The trench extended from the plaza in front of Structure F24 to the edge of the upper summit and measured 10.5 m east-west by 2 m north-south. The summit excavation immediately yielded a facing that may have represented a small rear step and, then, two superimposed floors set over what was largely dry core fill containing Preclassic and Early Classic sherd materials. Late Classic sherd materials were above these floors. At the base of the building, excavation began by removing much of the looters' backdirt. This led to the recovery of most of an urn (Figure 23A) that probably had been cached directly in front of the front stair for Structure F24, as well as cut conch shell (Figure 27h) and parts of two finger bowls (Figure 23d) that may have come from other deposits. Two sequent floors were recovered to the west of the building, but only one of these continued into the plaza. Bedrock was not very deep within the plaza and excavation here yielded a Late Preclassic cache (S.D. C121C-1) and a burial (S.D. C121C-3) that dated much later. Beneath what would have been the stairway and immediately above bedrock, a cache (S.D. C121C-2) of two sets of finger bowls was found; these had barely been missed by the looters' tunnel. In the fill at the building summit a bundled interment (S.D. C121C-4) was recovered; sherd material directly above it suggest that it was placed in the Late to Terminal Classic Period. A deep cut made through an earlier building (over 1 m above bedrock) and extending some 60 cm into bedrock contained a Protoclassic interment (S.D. C121C-5). The sequence

recovered from the Structure F24 locus is one of the longest known at Caracol and ran from the Late Preclassic (Figure 32) to the Late to Terminal Classic (Figure 31c-e,k) Periods.

S.D. 121C-1 (Figures 20 and 21) was assigned for a cached vessel that had been placed directly on bedrock and covered with a shaped limestone disk. As the vessel is eroded Flor Cream, it is assumed that the cache was placed in the Late Preclassic Period; this dating agrees with sealed fill units from with Structure 24 indicating that a formal construction was in existence in this locus at that time.

S.D. 121C-2 (Figures 22 and 23) was assigned for a cache of two sets of lip-to-lip finger bowls that were set directly above bedrock and were located at the southern edge of the looters' excavation. The cut to place these cache vessels penetrated the two plaza floors. As finger bowls are in use from the Late Preclassic through Late Classic Periods at Caracol, this deposit cannot be securely placed in time. One set of finger bowls (Figure 23b) contained a single 3rd row phalange; the other set of finger bowls (Figure 23c) contained a single 1st row phalange and a fragmentary phalange.

S.D. 121C-3 (Figure 24 and 25) was designated for a pit burial placed in front of Structure F24 at the point where the formal plaza floors ended. The pit was dug into bedrock and contained the flexed remains of an adult female with her head to the north. Her upper central incisor is notched and there is some resorption of her teeth, possibly indicating an older adult. Pieces of a small unslipped plate (Figure 23d) were set above her left leg and the remains of an extra skull (possibly male) were also recovered above the area of her head. Based on the plate, it is possible that this interment dates to the early part of the Late Classic Period.

S.D. 121C-4 (Figure 26) was assigned for an interment that was placed directly into the rear fill of Structure F24 slightly over 1 m below ground surface. This burial contained the disarticulated and bundled remains of two adults. The primary individual is likely female and dental wear suggests that she was older than the other individual. This older female had empty inlay holes in two of her teeth (upper right central incisor and upper right canine). The only artifactual material that can be assigned to this interment are a carved shell flower (Figure 27f) and carved animal bone (Figure 27d). Whereas the majority of the Structure F24 cobble fill contained only Late Preclassic or Early Classic ceramic

materials, the area immediately above S.D. C121C-4 yielded Late to Terminal Classic sherds, suggesting that a cut had been made into the building fill from the upper floors in order to place this interment.

S.D. C121C-5 (Figures 28 and 29) was assigned for a burial placed into a bedrock pit. The southern portion of the interment had been disturbed in antiquity, possibly to place another burial. The primary individual in S.D. C121C-5 was a single adult individual that was possibly female. Based on the position of the intact leg bones, the head was placed to the south; 4 vessels were placed at the feet of the individual. Only 2 teeth were recovered. The vessels are an interesting mix; they include a shoe-pot (Figure 30a), a polychrome pot-stand (Figure 30d), an olla with a grooved rim (Figure 30c) and a small, deep red tetrapod plate (Figure 30a). The bedrock at the southern end of the pit was higher than that at the northern and this area appears to have been disturbed in antiquity. Some non-localized bone was recovered from the fill within the pit; it appears to come from a subadult that was approximately 1 year old at time of death. It may be that the placement of these subadult remains was responsible for disturbing the southern end of S.D. C121C-5.

Alta/Baja Vista Residential Groups: Structures F30-F42

Connected by a via to the Caracol epicenter and containing one of the tallest structures outside the epicenter, the Alta/Baja Vista group was occupied by a household of some status (Figure 1). Excavations during the 2010 field season recovered 29 special deposits from this double-plaza group, which can be ordered temporally and help to sequence the temporal development of these buildings. In order to gain a more complete understanding of the Alta/Baja Vista complex, three buildings were investigated during the 2011 field season (Figure 34). The first was Structure F38, which is a very low eastern structure in Baja Vista located immediately north of the taller Structure F39 that was excavated during 2010. Structure F39 yielded three burials that spanned the late Late Classic Period. Given the patterning that was found in the double eastern constructions excavated in the Central Acropolis (D. Chase and A. Chase 1996), it was believed that Structure F38 would yield one or more Terminal Classic deposits; this did not happen. In Alta Vista, both the southern Structure F34 and the western Structure F35 were excavated. Structure F34 is a low construction with a frontal stairway that may have stone walls on its summit. It was

selected for excavation because of its prominent size on the southern side of Altar Vista. Structure F35 is a taller western structure that has been axially looted; it superficially resembled Structure F2 in the Northwest Group, which had a re-entered rear tomb (D. Chase and A. Chase 2003). In order to test for a possible repeat of this pattern, Structure F2 was excavated during 2011, but proved to contain no formal deposits. The 2011 investigations, however, did serve to confirm the temporal priority of the Alta Vista constructions as compared to the Baja Vista buildings.

Structure F38 (Figures 34 and 35) was a very low eastern building immediate north of Structure F39. The building dated entirely to the Late to Terminal Classic Period and was not associated with any special deposits.

Operation C184G (Figures 36 and 37) was assigned to the 6.6 m east-west by 2.0 m north-south trench that axially penetrated Structure F38. This excavation revealed that Structure F38 had undergone 2 construction phases, both of which occurred during the Late to Terminal Classic Periods. Two facings, both set directly on bedrock, were recovered in the western extent of the trench. The fill for the building was placed directly onto bedrock and contained Late-Terminal Classic incensario fragments (Figure 38), utilitarian jars and ollas (Figure 39), and use related trash that included figurine fragments (Figure 40a-c) and chert drills (Figure 40h,n-p). A single jadeite bead (Figure 40j) was recovered directly on bedrock in the middle of the trench; while some might argue for its purposeful placement, it could have been just as easily accidentally lost by the inhabitants of Baja Vista.

Structure F34 (Figures 34 and 41) rose approximately 1.4 m above the Alta Vista plaza and is the only building on the southern side of this residential group. A sump was evident on the summit of the building before excavation; it was caused by the collapse of the roof of S.D. C185C, an open-air crypt. The last construction phase for Structure F34 can be dated to the transition from the Early to the Late Classic Period based on this burial.

Operation C185C (Figures 42, 43, and 44) was assigned for an axial trench placed over Structure F34 that measured 8.0 m north-south by 2 m east-west. This excavation revealed a long and complicated sequence of floors and facings that extended back to at least the transition into the Early

Classic Period. The fill beneath the earliest plaza floor contained an unusual series of smaller bowls from this time (Figure 50a-g). Some of the latest material from this building included a limestone barkbeater (Figure 49a) and a Late Classic miniature jar (Figure 50h). The stratigraphy encountered in the excavation suggested that there were minimally four different version of Structure F34 and that the building had been placed over an even earlier curved construction (Figure 44, plans 6-8). No dimensions for the final building were recovered. However, the interment had been cut into one floor and bedded on an even earlier floor; its capstones would have had to have been covered by an even higher floor. The northern end of the crypt was placed beneath the last step up for Structure F34-1st and a small piece of floor indicated where the exterior facing had been.

S.D. C185C-1 (Figures 45, 46, and 47) was designated for the bone and artifacts found at the bottom of a collapsed crypt at the summit of Structure F34. The crypt measured 65 cm in width by 1.95 m in length; its height was approximately 60 cm. The primary individual, an adult, was presumably once extended in the crypt with head to the south; this individual exhibited antemortem tooth loss. Three ceramic vessels (Figure 48) were located in the area of his head and date the deposit to the Early Classic to Late Classic transition. The partial remains of 2 children, aged at 3 and 4 years old, were also present in the chamber.

Structure F35 (Figures 34 and 51) rises some 3.7 m above the plaza floor on the western edge of Alta Vista. It is situated on top of the edge of a steep hill and looks out over the western portion of Caracol. A axial looters' trench had savaged the eastern side of the building, revealing a series of plaster floors in the interior of the construction.

Operation C185D (Figures 52, 53, 54, 55, and 56) was assigned for a 12.9 m east-west by 2 m north-south trench that penetrated the entire summit and front of the building. Excavation revealed a single floor at the summit of the construction and then two hard plaster floors 1.6 m below the summit. Some 2.1 m below these intermediate floors lay a hard plaster floor that also served as a plaza floor. A western construction wall had been built on this early plaza floor that was associated with the uppermost surface for Structure F35. Immediately west of the construction floor, and buried in the fill for the

intermediate floors, were the very partial remains of at least 3 earlier phases of the building (Plans 7-10 in Figures 55 and 56). Very little in the way of artifacts (Figure 57) were recovered. The ceramics that were found above the basal plaza floor indicate the Structure F35 was constructed in the Late Preclassic Period (Figure 58). In the extension of the trench into the plaza, partial human remains were encountered, possibly representing a burial; however, these had been disturbed by the looters.

Summary of Excavations in the Alta/Baja Vista Residential Groups

Excavations during 2010 and 2011 in the Alta/Baja Vista compound have revealed that occupation in the two residential groups was temporally sequent. Alta Vista appears to have been the initial group that was occupied. By the Late Preclassic Period, both Structures F35 and F33 had been constructed; the earliest cache recovered in Structure F33 dates to this era. Structure F33 continued to be ritually important into the Early Classic Period, when the height of this building was increased. At the very end of the Early Classic Period, a burial was placed in Structure F34. This was followed very early in the Late Classic Period by the placement of a burial and at least one cache at the base of Structure F33; the interment disturbed an earlier cache that had been placed at the base of this building. One further burial was located in front of Structure F33 in the early Late Classic Period, as were a series of face and finger caches. In the late Late Classic Period, a burial was intruded into the summit of Structure F33, representing the last ritual use of Alta Vista. The Baja Vista sequence is apparently later than the Alta Vista sequence. In Alta Vista, the earliest in situ caches presumably date to the late Late Classic Period and occur in front of both Structure F36 and F39; there is also a Late to Terminal Classic cache in front of Structure F39. The tomb inside Structure F36 dates to the transition between the early and late Late Classic. Structure F38 was constructed in the late Late Classic Period (or after A.D. 700) based on sherds within its cores. The earliest interment in Structure F39 dates to the late Late Classic; the burial in front of the building is even later. If there is a time when ritual events, involving caching practices, incensarios, and burials, were carried out in both Alta and Baja Vista, it is in the late Late Classic Period. Terminal Classic interments were recovered from both Structures F36 and F39 in Baja Vista; nothing from this time period was found in Alta Vista. The vacant terrain building in the Baja Vista plaza also contained

utilitarian ollas, indicating that this may have been the cooking area for the residents of the group during the Terminal Classic Period. A few isolated sherds relating to the epicentral Terminal Classic palace ceramic subcomplex were recovered in the excavations and in one Structure F36 burial, indicating some minimal access to these materials. In summary, excavations undertaken in Alta Vista and Baja Vista demonstrate that these conjoined groups formed a unified residential compound; its buildings were in use for approximately 700 years, presumably by the same extended secondary elite family.

Chalpat Residential Group: Structures F8-F14

The fourth residential group investigated during the 2011 field season is situated between the Alta/Baja Vista Groups and the Ramon group. The Chalpat residential group (Figure 59) is smaller in size, in terms of both areal extent and structure elevation, than the other two groups. However, it was contemporarily occupied. Based on the smaller size of its plaza and buildings, it was postulated to have been occupied by a lower status household. In order to make comparisons between the northern and eastern buildings of all of these groups, the northern Structure F9 and the eastern Structure F11 in Chalpat were initially selected for investigation. The western Structure F14 was also investigated because of a sump on its summit; this sump produced what was apparently a re-entered tomb (e.g. D. Chase and A. Chase 2003) that had been infilled during the Terminal Classic Period. The Chalpat residential group appears to have been occupied from the Early Classic through the Terminal Classic Period. No materials that could be related to the Terminal Classic palace ceramic complex were recovered in these excavations. **Structure F11** (Figure 59 and 60) was located on the eastern side of the Chalpat group and rose approximately 1 m above the central plaza. Only one possible facing could be identified that demarcated the western edge of the building's summit. Based on the 2011 investigation, a perishable construction would have surmounted the summit of Structure F11.

Operation C186B (Figure 61 and 62) was assigned to the axial trench placed into Structure F11 that measured 6.4 m east-west by 2 m north-south. Large flat slabs constituted the uppermost core for the last building effort, appearing as if a pavement in the eastern part of the trench when the humus was removed. An elevated plaster floor buried in later building fill in the eastern part of the excavations

suggests that there may have been at least two different versions of Structure F11. In contrast to the untouched eastern end of the trench, the western end of the excavation, in what would have been the frontal area of the building, was very disturbed. No steps could be located and the two frontal caches that were found, although localized, were broken and scattered; in addition, another partial set of finger bowls (Figure 65f, g) were found distributed among the front fills. Also in the frontal fills were several pieces of speleothem (Figure 64c, d, g) that may once have constituted an offering and a large fragment of a Late to Terminal Classic incensario (Figure 63b), possibly with its lid (Figure 63a). Besides the two formal caches that were located, two interments were also recovered from this investigation.

S.D. C186B-1 (Figure 66) was assigned to a set of cache vessels placed in the plaza fill in front of Structure F11. The cache vessels were located in the center of the axial trench on its eastern end. Three distinct vessels sets are represented: a rounded urn with lid (Figure 65c); finger bowls (Figure 65d); and a lip-to-lip set of vases (Figure 65e). This vessel set likely dates to the onset of the Late Classic Period and is possibly contemporaneous with S.D. C186B-4.

S.D. C186B-2 (Figure 66) was assigned to a set of finger bowls located slightly east of S.D. C186B-1 (Figure 65h). This finger bowl set had been disturbed in antiquity.

S.D. C186B-3 (Figure 67) was assigned to an interment located in the northeastern corner of the excavation. The pit for the disarticulated bodies had been dug into bedrock and a large stone slab covered part of the burial. A single broken vessel found at the southern edge of the interment permits the deposit to be dated to the very onset of the Late Classic Period. Three individuals were recovered from the burial: one is an adult and two are older adults. Postcranial material was recovered for two individuals; the third individual is indicated solely by the presence of an additional skull. Two right mandible fragments show antemortem tooth loss of all molars. At least two of these individuals had inlaid teeth. The primary individual had mandibular inlays that possibly stretched from left canine (hematite inlay present) to right canine (empty inlay hole present). Three other inlaid teeth are present: one is an upper central incisor exhibiting 3 inlays holes; one is an upper central incisor exhibit a hematite inlay; and, a third is a right lateral incisor with a jadeite inlay.

S.D. C186B-4 (Figure 68, 69, and 70) was assigned for an interment that was placed inside a north-south crypt that was situated directly beneath the western summit facing. The crypt had been cut into bedrock and then lined with thin stone slabs on its sides, some of which were almost free standing (Figure 70). The crypt itself measured 1.75 m north-south by 0.45 m east-west (at its maximum) by 0.50 m in height. The capstones that covered the crypt were comprised of unshaped, rough, thin limestone slabs (Figure 62). Immediately north of the crypt and at a slightly higher level were three shaped limestone slabs that may have functioned as an entryway (now disturbed) to an open air crypt. These shaped slabs covered disarticulated human bone (fragmentary cranial, fragmentary long bones, and 4 teeth) that may have represented an additional interment or offering (however, it was not designated as a separate S.D. in the field). The crypt itself (Figure 69) held the remains of two individuals. The primary individual was prone with head to the south. The age and sex of the primary individual was not determined. However, the primary individual's teeth exhibited substantial wear on the upper canines and first premolars. A second, bundled individual, possibly female, was included near the northern end of the chamber. Excavators in the field suggested that the bone beneath the upper slabs may have belonged to this individual; however, given poor preservation, this could not be confirmed. Three vessels accompanied the primary individual; two were at the individual's head (Figure 71b, c) and the small perfume bottle (Figure 71a) was set east of the knees. A *spondylus* bead (Figure 72h), a fragmentary bone awl (Figure 72a), and shell inlay pieces (Figure 72d-g, i) from an unknown artifact also accompanied the burial. Perhaps the most unusual thing to accompany the individual was a set of two small jadeite earflares (Figure 72j, k), artifacts usually associated with high status individuals at Caracol. The ceramic vessels included in S.D. C186B-4 date this interment to the early part of the Late Classic Period.

Structure F9 (Figures 61 and 73) was the most prominent structure on the north side of the Chalpat residential group, rising some 1.2 m above the plaza. There was some indication of a frontal step for the building, but little architecture was visible in the mound.

Operation C186C (Figures 74, 75, and 76) was assigned for an axial trench through Structure F9 that measured 7.00 m north-south by 2 m east-west. Excavation produced evidence for at minimum 3

different versions of Structure F9 that were apparently accompanied by a number of other architectural changes (Figures 75 and 76). The earliest formal constructions that were noted were actually of two buildings and a north-south alleyway in between them; these two constructions were subsumed within a single building, which was eventually raised to the current height of Structure F9. There is no evidence that anything other than a perishable edifice ever surmounted the summit of Structure F9. No formal deposits were recovered in the excavation. As with Structure F11 (Figure 64b), a broken spindle whorl (Figure 77a) was recovered in the humus of the structure. Within the upper portion of the building fill, a broken limestone – used for drilling beads (Figure 77c; see also Kovacevich 2007) was recovered as well as a carved slate fragment (Figure 77h). Sherds in these upper fills included a mix of materials ranging from Late Preclassic to Late Classic. Perhaps the most interesting material came from directly above bedrock and included a jadeite inlay, complete marine shells (Figure 77k, n), a ceramic “stopper (Figure 77m), and a undiluted deposit of large fragments of Early Classic ceramic sherds (Figure 78). Thus, the archaeological data indicates that Structure F9 was first constructed during the Early Classic Period and used at least through the Late Classic Period.

Structure F14 (Figures 61 and 79) was located on the western extent of the Chalpat plaza. The upper portion of the building appeared to have a north-south sump within it. This sump was slated for investigation in hope that it would produce a Terminal Classic deposit, matching similarly excavated deposits in the southern Peten of Guatemala (Laporte 1994, 2004). Excavation did, in fact, reveal a tomb that appears to have been re-entered in the Terminal Classic Period.

Operation C186D (Figures 80 and 81) was assigned to a trench through Structure F14. The trench was not placed on access, but rather at an angle of about 30 degrees to the architecture recovered. This misalignment was not purposeful, but was rather due to heavy root action to the front of the mound which made the structure appear to be a different orientation. The trench itself measured 5.60 m east-west by 2 m north-south. It succeeded in finding the frontal facings for Structure F14. The investigation also demonstrated that Structure F14 was a single phase construction that once housed a tomb. Besides the tomb, the burial of a child had also been placed beneath the front steps of the building. The building

fill contained a mix of Late Preclassic to Late Classic sherd material, but a reconstructable Late-Terminal Classic vessel (Figure 86c) was found in building fill just above bedrock, indicating that Structure F14 was built at this time. The core of the building also contained a relatively large amount of chert, obsidian, shale, and quartzite tools (Figure 82), indicating that much lithic production debris had entered the building fill. Worked shell (Figure 82h,r,jj-oo) was also recovered from the fill and may represent one of the items manufactured in Chalpat.

S.D. C186D-1 (Figures 83, 84, and 85) was assigned to what appears to have been a re-filled tomb. It was clear before excavation that some kind of linear discontinuity would be found within the dry core fill of Structure F14. Eventually, the rough stone walls of the chamber were followed down to a plaster floor (Figure 85) that was at the same level as the bedrock in the front of the excavation. Confirmation that this was in fact a re-entered tomb was provided by the walls and the *in situ* bone at the bottom of the chamber (Figure 84); in accord with other chambers of this kind at Caracol, it is suspected that the tomb roof collapsed and was removed before the chamber was in-filled with rock (D. Chase and A. Chase 2003). The chamber measured 1.80 m north-south by 0.85 m east-west (maximum) and had an original minimum height of 0.95 m (Figure 85). One vessel was found on the floor of the chamber in the northeast corner (Figure 86c) and it is possible that the complete flute (cover; Figure 86a) was involved in a ceremony marking the infilling of the tomb. Within the chamber, two adult individuals were present. One was extended and one was located in the northeast corner of the chamber. With only dry core directly above the interment, the bone was not well preserved and no sex identifications were possible. None of the 13 teeth recovered show any evidence of inlays.

S.D. C186D-2 (Figure 87) was assigned for the interment of a child that was placed within the fill of Structure F14 beneath the frontal stair. The bone was in a very bad state of preservation. The subadult was approximately 3 years old at time of death. Most of the child's teeth were recovered, but the recovered leg and arm bones were very fragmentary. Seven adult teeth were also recovered, possibly suggesting that an adult skull once had accompanied the deposit. An impressive necklace

accompanied the child. It consisted of a central shell pendent with a carved face, two odd-shaped pieces of limestone and two drilled olive shells (Figure 88a-e).

Structure F13 (Figure 89) comprised the southern building in the Chalpat Residential Group. It was not excavated by the project. However, looters had penetrated its southern side. Once the Chalpat plaza was cleaned, the stone outline of the structure was quite evident; the building exhibits a central rear bench. A plan of the stones that were evident on the ground surface without excavation (Figure 89) was made of the building.

Equifinality Regarding Terminal Classic Variability in the Western Caracol Epicenter

By the conclusion of the 2011 field season, many of the residential groups that occupy higher ground beyond the western limits of the Caracol epicenter had been investigated. The excavated sample includes the Northwest Group (specifically, Structures F2 and F4), the Northwest Acropolis area (specifically Structures A61, A63, A69, and H2), most of Alta/Baja Vista (Structures F33, F34, F35, F36, F38, F39, and F41) residential group, and a series of buildings in both the Ramon (Structures F19 and F21) and Chalpat (Structures F9, F11, and F14) residential groups. All of these compounds fed directly into the causeway that articulated with the epicentral A Group (see Figure 1). Thus, it became clear that it was necessary to have as complete a picture of the A Group constructions as was possible. Toward this end, the summit of Structure A1 was excavated during the 2011 field season.

It appears that much of the A Group was constructed either in the Preclassic or Early Classic Period with slight Late Classic modifications. The 25 m high Structure A2 is largely a Late Preclassic construction that was finished with a summit platform and monument in the Late Classic Period. Similarly, Structure A3 was constructed in the Early Classic Period and then modified in the Late Classic Period. Initial constructions on the eastern side of the A Plaza associated with Structure A6 date to the Late Preclassic Period (A. Chase and D. Chase 2006); Structures A5 and A7 date to end of the Early Classic Period (A. Chase and D. Chase 1995). Structure A4 dates to the very beginning of the Late Classic Period. Structure A8 was constructed in the Early Classic Period and modified in the Late Classic Period.

All of the buildings in the A Group have seen some archaeological investigation, and basal portions of these structures have been excavated by either the Caracol Archaeological Project or the Tourism Development Project. All of the A Group structures had also been penetrated with summit excavations – with the exception of Structure A1. All of these summit excavations had yielded Terminal Classic artifactual materials. For Structure A2, this included spiked and modeled censer material (A. Chase and D. Chase 2004:fig. 16.4a). For Structure A3, this included two censers left on the interior building floor at the time of abandonment (see A. Chase and D. Chase 1987:14). For Structure A6, this included extensive collections of reconstructable Terminal Classic ceramic vessels (e.g., A. Chase and D. Chase 2004:fig. 16.4b) and censerware (D. Chase and A. Chase 2010:fig. 3g). A fine orange grater bowl was found on the floor of an interior room in Structure A8 (A. Chase and D. Chase 2004:fig. 16.7i). Thus, the expectation was that similarly late materials would have been recovered from the summit of Structure A1. Yet, the summit of Structure A1 produced no materials dating to the Terminal Classic. However, this excavation provided closure for the sample, permitting us to better understand the A Group construction sequence. Based on the 2011 investigations, it appears that most of the summit of Structure A1 had been completed by the end of the Early Classic Period.

Caracol Structure A1 (Figure 90) is the 15 m high pyramid that defines the southern end of the A Group main plaza. The construction of Structure A1 must have taken place by the end of the Early Classic Period. This conclusion can be drawn based on fill sealed in the building summit and based on deposits recovered in a platform appended to its southern side during the 1997 field season (1997 season report at www.caracol.org; see also D. Chase and A. Chase 2008).). Excavations were carried out on all of the various basal sides of Structure A1 during the 1998 and 1999 field seasons. While the lowest terrace was reached in all of these excavations, on the north side, a central architectural inset (probably representing a mask, as in Structure A3) had been placed on the building's axis at plaza level. This central excavation and one other on the north side of the building also yielded speleothems that must have fallen out of the collapsed core of the substructure, potentially indicative of its ritual function (Ishihara et al. 2011). Summit excavation of Structure A1 in 2011 revealed a rear northern facing and three southern facings.

The southern facings suggest that Structure A1 was surmounted by a perishable construction that had a rear masonry bench and a masonry frontal step. At some time after it was built (possibly during the Late Classic Period based on sherd material), a burial was intruded through the front step and placed into dry core fill; then, the pit was in-filled and the summit was raised to its present height, but without any formal construction. Like Structure A1, the earlier version of Structure A2 was surmounted by an elevated platform that probably supported a perishable building; however, the A2 platform was significantly more elevated and had frontal stairways on either end of the platform that bounded a space for Stela 22 (Grube 1994).

Operation C187B (Figures 91 and 92) was assigned for an axial summit excavation of Structure A1. The original trench measured 6.20 m in width, but reached an eventual size of 8.60 m north-south by 2.00 m east-west. As noted above, rear facings were recovered once the humus was removed. Excavation into the upper core of the building found two buried facings, but only the eastern extent of these facings was preserved (Figure 92); this was because they had been cut through to place an interment (S.D. C187B-1) into the underlying dry core fill. The earlier construction represented by these bisected facings dated to the end of the Early Classic Period based upon sherd material in fill; this fill also contained a piece of a monument fragment (Figure 95g). At a depth of 2 m below the summit surface, a crude plaster floor was found that ran the length of the investigation. Penetration of this floor revealed more dry core fill and the excavation had to be halted.

S.D. C187B-1 (Figures 93 and 94) was assigned to a burial that had been placed into the front core of Structure A1. Because the body had been placed into dry core fill, many of the bones and artifacts had fallen into interstices once the organic material decomposed. However, it appears that the body had originally been placed in a bundled position with head to the north (Figure 94). The skeletal material indicates that the individual was an older adult male with jadeite and hematite inlays in his teeth, as follows: upper and lower right canines had jadeite inlays; upper left lateral incisor had hematite inlay; lower lateral right incisor and two central incisors had hematite inlays; upper right lateral incisor and left first premolar had empty inlay holes; the right central incisor was present and had no inlay. Calculus

appeared on the lower incisors. Artifactual material accompanying the burial included a *spondylus* shell and an object that had jadeite and shell inlays (Figure 95). It is suspected that the interment is Late Classic in date.

Ground-checking the LiDAR DEM

The LiDAR survey of Caracol undertaken in the early summer of 2009 proved to be exceedingly successful in producing the visualization of cultural features beneath the forest canopy (A. Chase, D. Chase, and Weishampel 2010; A. Chase et al. 2011; Weishampel et al. 2010) and in revising our views of the spatial organization of the ancient Maya (D. Chase et al. 2011). One unanticipated outcome of this airborne survey was also the location of numerous caves throughout the Caracol area beyond those identified in the field (Feld 1994; Ishihara et al. 2011; Weishampel et al. 2012a). During the 2010 field season, initial ground-checking was undertaken of many of these features in the vicinity of the Caracol epicenter by Jessica Hightower, in all instances verifying the LiDAR data. During the 2011 field season, two specific areas were targeted for ground-check, including a smaller causeway that articulates with the Pajaro-Ramonal Causeway and an architectural concentration east of the Conchita Terminus (Figure 96). In addition ground-checks were undertaken to confirm the existence of residential reservoirs (Figure 97) and location of all of these features. One byproduct of this survey effort was the discovery of the systematic removal of cedar trees by Guatemalans throughout the Caracol Archaeological Reserve (most mahogany trees were removed long ago). The trees are cut at night (as the sounds of chain saws confirmed during the field season); then, they were further shaped into large rough planks that were left to dry for some time; finally, the lighter planks were hauled into Guatemala by horses. The amount of deforestation in the Caracol region that was revealed by this survey is a cause for concern – and the LiDAR can be used to effectively outline the problem that needs resolution and to provide baseline data on forest preservation (Weishampel et al 2012b).

Northeast Acropolis Stabilization

During the 2009 and 2010 field seasons, extensive investigations were carried out in the Northeast Acropolis. Three buildings were areally excavated with the intent to stabilize them: the

southwestern Structure B31, the western Structure B32, and the northern Structure B33; additionally, part of the bases for Structures B34 and B30 were also exposed for stabilization in consultation with the Institute of Archaeology. Initially, stabilization was to have begun in May 2010, but it was postponed by the Institute of Archaeology until the 2011 field season, when it would be easier to support the effort with the Caracol Archaeological Project kitchen. Although paid for by the Caracol Archaeological Project, the stabilization effort was undertaken by the Institute of Archaeology under the direction of Jorge Can and a separate crew of stabilizers. This workforce not only stabilized the architectural remains (Figure 98), but also established new trails into the Northeast Acropolis to make tourist access easier. The archaeological project articulated with these efforts by recording any new architectural details that the stabilizers uncovered (e.g., Figure 99) and by collecting artifactual materials (e.g., Figure 100) that were unearthed by their efforts. The stabilization of the Northeast Acropolis was finished by the end of March 2011.

Significance

The 2011 field season constituted the 27th continuous year of research at the site by the Caracol Archaeological Project. The 2011 field season researched three different problems. The first was the investigation and contextualization of Terminal Classic remains at the site immediately prior to the Maya “collapse” – in accord with the completion of a three-year research design (2009-2011). The second pertained to the examination of heterogeneity among residential groups in close proximity to each other. The third involved the ground-truthing of features identified through LiDAR remote sensing.

Taking these research objectives in reverse order, LiDAR ground-checks during the 2011 field further demonstrated the ability of this tool to identify key features at the site from afar. These features range from causeways to buildings to agricultural terraces to caves to man-made reservoirs. LiDAR is a tremendous boon to landscape archaeology.

Undertaking investigation of multiple neighboring groups in the Northwest part of the site allowed for consideration of both the variation and the similarities among residential groups in a way that would not have been possible with less geographically concentrated excavation. This is particularly apparent in evidence of mortuary practices, caching activity, and in production debris. Interments were

found in all residential groups investigated in the Northwest region. Like much of Caracol, eastern structures served as a primary location for mortuary activity (D. Chase and A. Chase 2004). However, in contrast to many of the other investigated residential groups elsewhere at the site, no formal tombs were found in eastern constructions in the groups that were investigated; rather, burials in eastern mortuary structures in this part of the site consisted only of simple interments, cysts, or crypts. That tombs were an option for the area's inhabitants is indicated by the presence of tombs within several northern (Structures F21 and F36) and western structures (Structure F2 and F14). Incorporation of tombs in northern structures is characteristic of other residential groups at Caracol both in the epicenter (Structures A3, A34, and B19) and in the outlying core (e.g., Structure B40). However, the use of tombs in western constructions is more characteristic of the Peten area to Caracol's west. This Peten association coincides with previous findings that there were a greater proportions of Peten-like ceramics in the western Caracol excavation areas, presumably due to distribution of goods through the western terminus market at La Rejollilla (A. Chase and D. Chase 2008). These findings may also suggest that the occupants of this sector of Caracol maintained strong ties with their western neighbors. That the inhabitants of the Caracol Northwest sector were clearly part of the Caracol identity, however, is evident from the face caches and finger bowls found in association with the eastern mortuary constructions. Similarities among groups also are apparent in certain burial offerings; ceramics in S.D. C185C-1 and S.D. C186B-4 are unusual and yet nearly identical. As is the case elsewhere at the site, production appears to be varied among the households, although at least two of the residential groups may have focused on marine shell production. It is also likely that there was status variation among the groups. Future analysis of remains from these investigations will hopefully provide additional information on the relationships among households. Continued investigation of household clusters or neighborhoods is planned for a different sector of Caracol in subsequent seasons.

While the collapse has been frequently attributed to warfare (Demarest 1993, 1997, 2004) or to drought (Gill 2000; Gill et al. 2007; Hodell et al. 1995) in the more popular press, many Maya archaeologists believe that these were not the primary causes of the depopulation of most Maya centers by the tenth century (e.g., Iannone et al. in review). We believe that internal social and political stresses

played a major role in the break-up of Classic Maya society (e.g., A. Chase et al. in review). By examining variability within the latest residential remains at Caracol, it is possible to better understand the internal composition of Maya society at this point in time, thereby contributing further insight into the social, political, and economic situation that existed circa A.D. 900. While it is possible to see status-linked differences in ceramic usage at Caracol at the time of the collapse, there was also contemporary variability in residential units relative to rituals and to material culture remains. With only a few exceptions, the status-linked ceramics seen in the epicentral palaces are not replicated outside of the site epicenter – even though clear differences in architecture, residential activities, and artifactual contents can be defined within the various residential groups. By paying close attention to detail it is possible to identify non-epicentral Terminal Classic materials, particularly in interments. But, the fact remains that the elite inhabitants of Caracol had access to a wide array of material culture and food items that were not available to the bulk of Caracol's people during the Terminal Classic Period. Given the earlier similarity in material culture among all parts of Late Classic Caracol society, the dichotomy seen in the Terminal Classic Period surely caused some social and political tension. This tension alone could have laid the foundation for the eventual collapse at Caracol, particularly if warfare, climate, or environmental factors helped to provide a “trigger.” In summary, the research carried out during the 2009, 2010, and 2011 field seasons not only provides temporal depth for understanding the growth and development of Caracol's residential groups and epicentral palaces, but also provides a firm foundation for analyzing the social and political changes that likely contributed to Caracol's ultimate collapse and abandonment.

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TABLE 1:
Caracol Project Members: 2011 Field Season

Staff:

Directors

Arlen F. Chase	C1
Diane Z. Chase	C2

Lab and Field Directors

Maureen Carpenter	C56
Lisa Lomitola	C183

Senior Field Supervisors

Alexander Rivas	C188
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Field Supervisors

Adrian Chase	C154
Patrick Rohrer	C172

Field Assistants

Rachel Eagan	C201
Claire Lewis	C202
Rachel Landry	C203
Tiffany Linley	C204
Marc Marino	C205
Brooke Martin	C206
Max Seidita	C207

Clean-Up Crew

Lucas Johnson	C134
Amy Morris	C111

Belizean Labor:

Kitchen

Angelica Meneses
Linda Aurora Meneses
Felipa Guy
Karen Guadalupe Meneses

Field

Carlos Cocom
Adrian Venicio Cruz, Jr.
Reynaldo Cunil
Saul Galeano
Rudolfo Carlos Godoy
Jaime Iglesias
Jose Bernabe Lopez
Sergio Rafaelito Jimenez
Carlos Ivan Mendes
Asterio Morales
Narciso Uc

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- Figure 78: Sherd materials associated with the lowest levels in Operation C186C: a., h. Dos Hermanos Red; b., u. Aguila Orange; c., d., e., q., r., t. Quintal Unslipped; f., g., i. Balanza Black; k., s. Pucte Brown; j., l., m., n., p. Dos Arroyos Orange Polychrome; o. Candelario Appliqued.
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- Figure 93: Photograph of summit excavation, showing general location of S.D. C187B-1.
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- Figure 100: Artifactual materials from Northeast Acropolis collected by stabilizers: a. ceramic tripod bowl, probably Tinaja Red; b. ceramic figurine fragment; c. large chert flake.

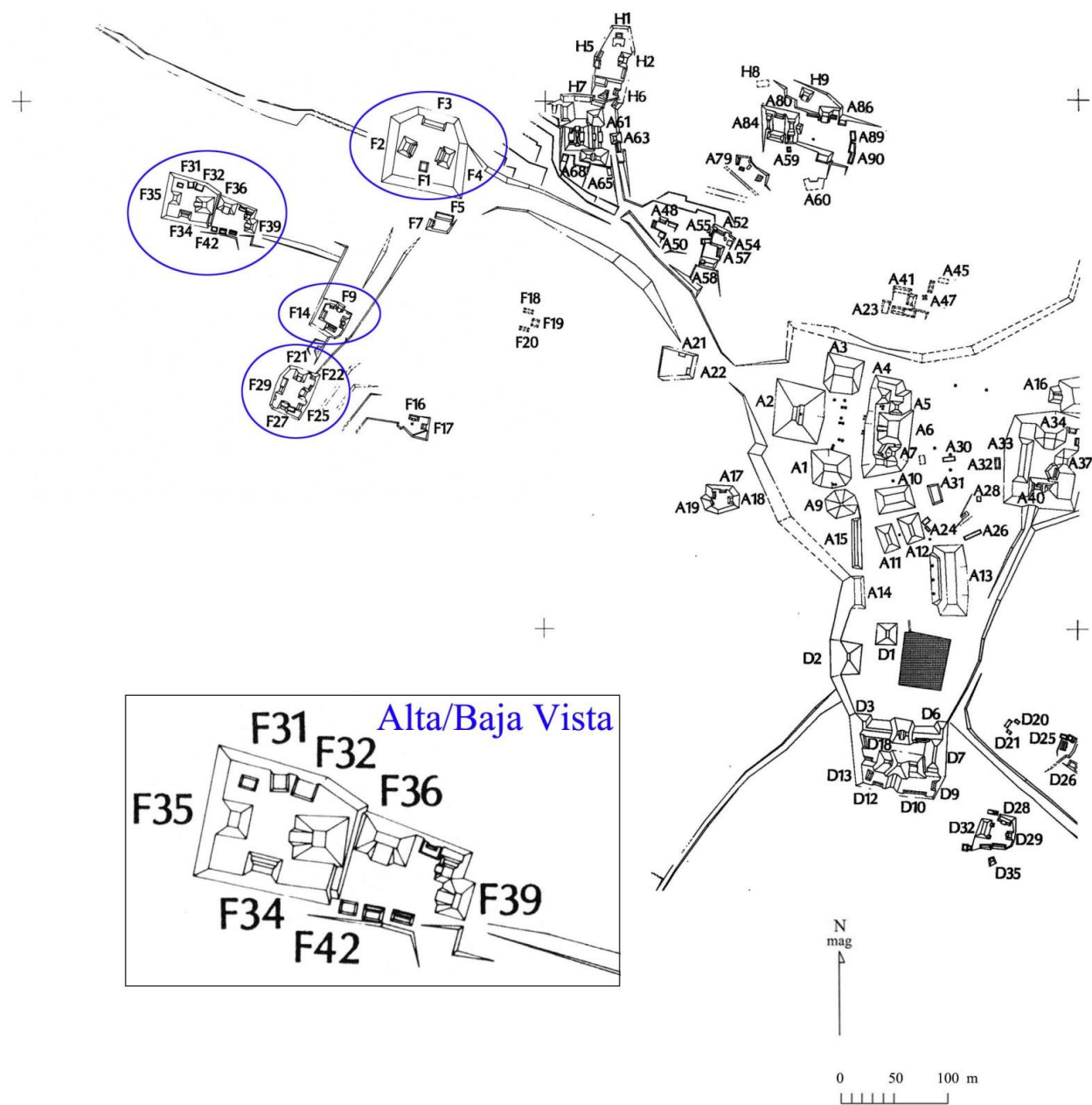


Figure 1: Western Caracol epicenter, highlighting the location of the residential groups investigated during the 2011 field season (after A. Chase and D. Chase 1987).

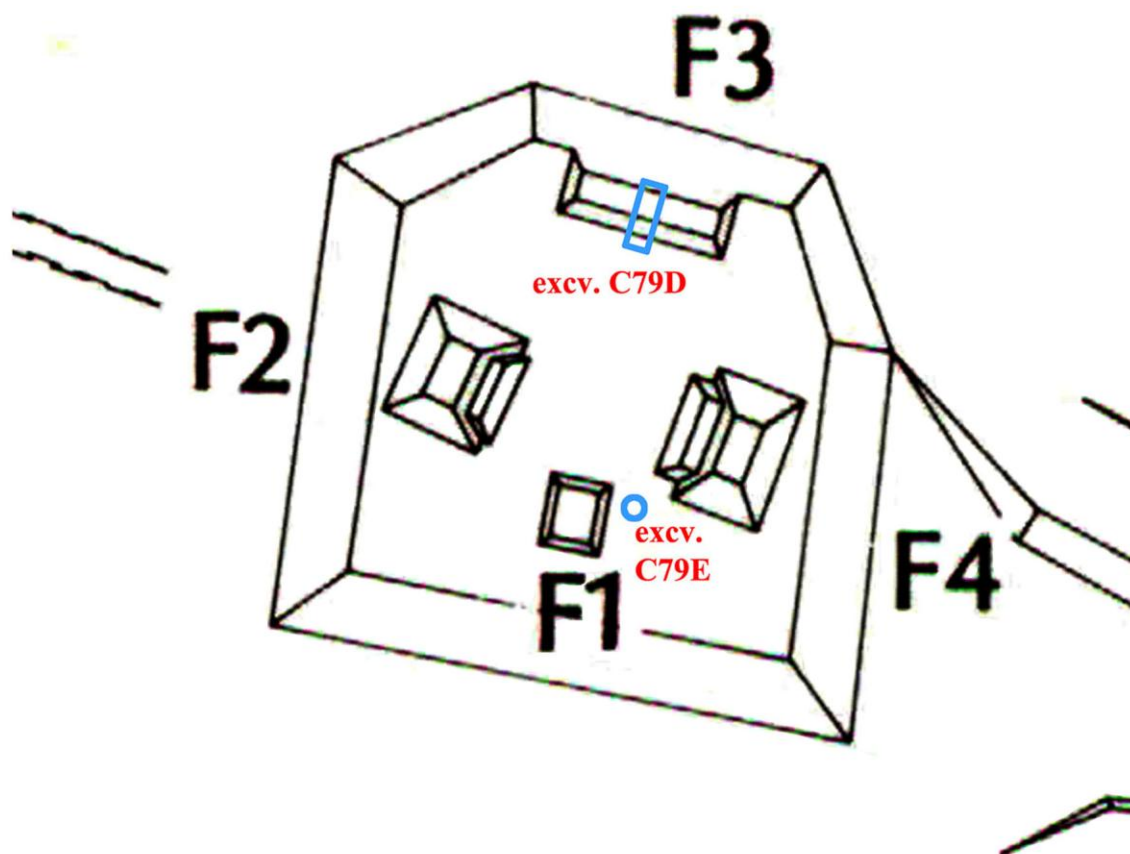


Figure 2: Plan of Northwest Group, showing the locations of Operation C79D and C79E.



Figure 3: Photograph of excavations in Structure F3, showing Operation C79D.

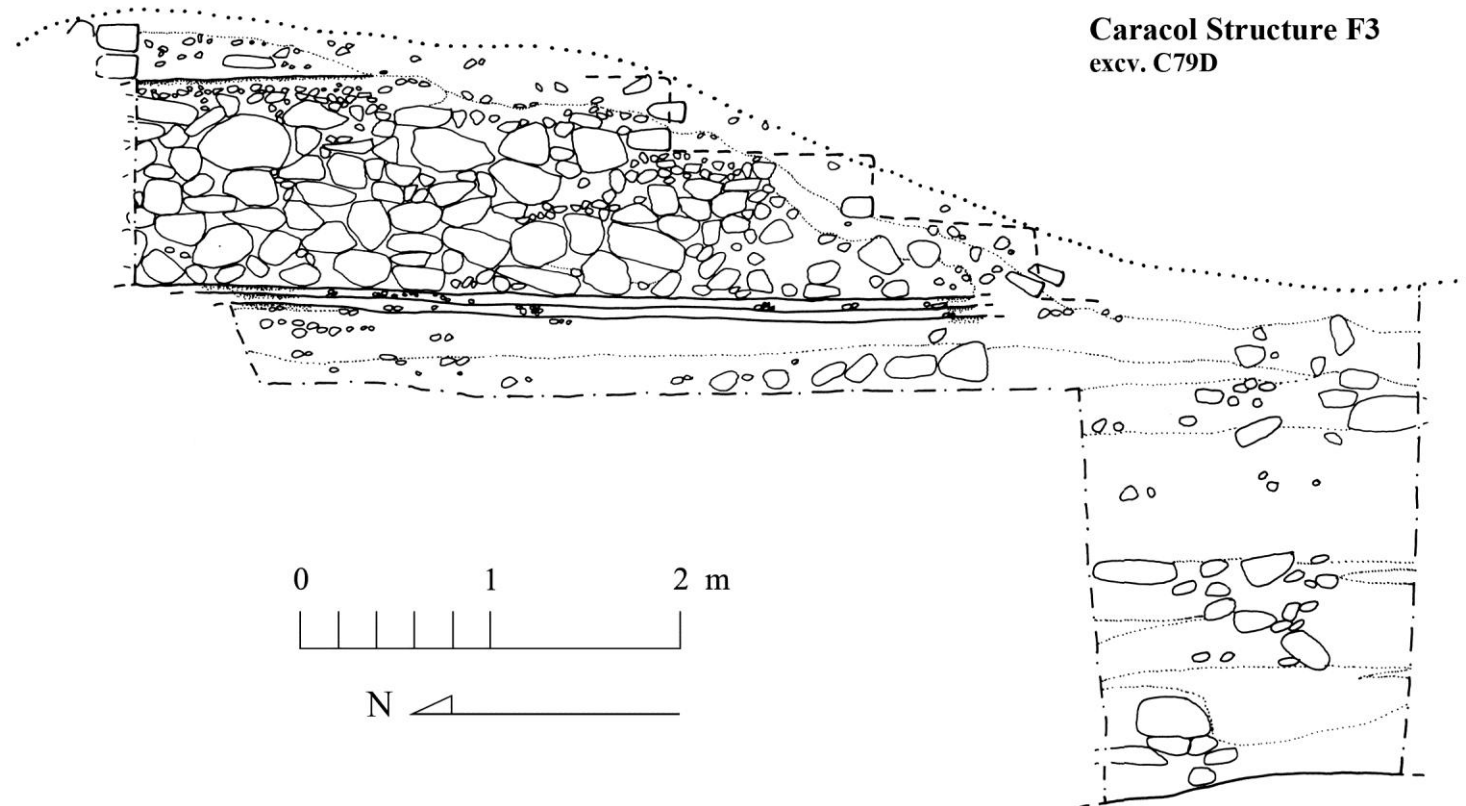


Figure 4: Structure F3 section (Operation C79D).

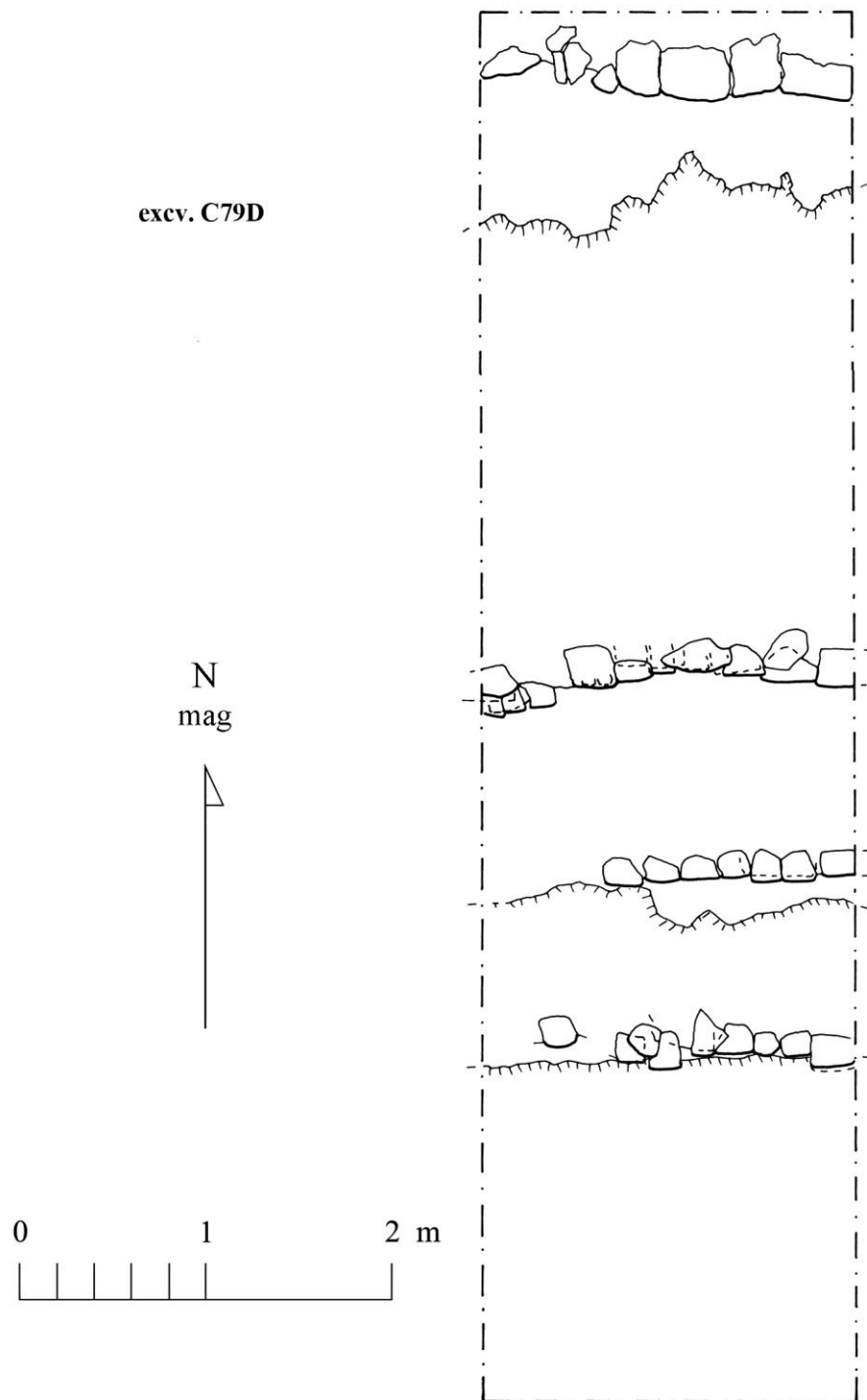


Figure 5: Plan of steps and facings associated with Structure F3, once humus was removed.

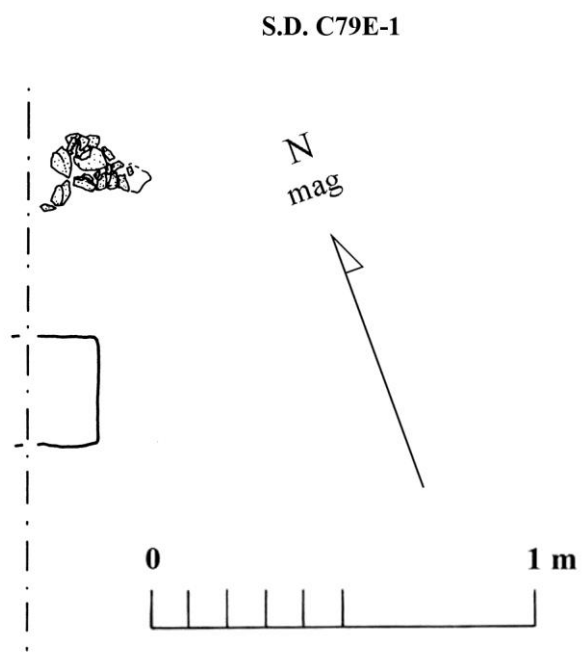


Figure 6: Plan of Special Deposit C79E-1.

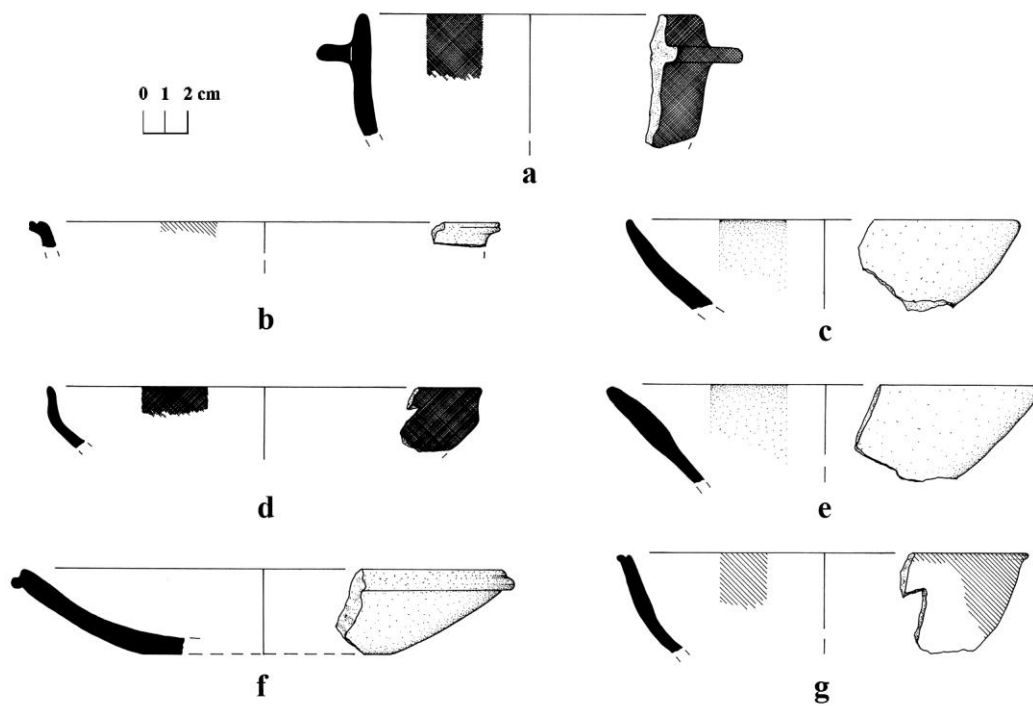


Figure 7: Sherds recovered from just above bedrock in the lower plaza cut in Operation C79D:
a., d. Chunhinta Black; b. Joventud Red; c., f. possibly Pital Cream; e. Achiotes Unslipped;
g. Muxanal Red-on-cream.

excv. C79E

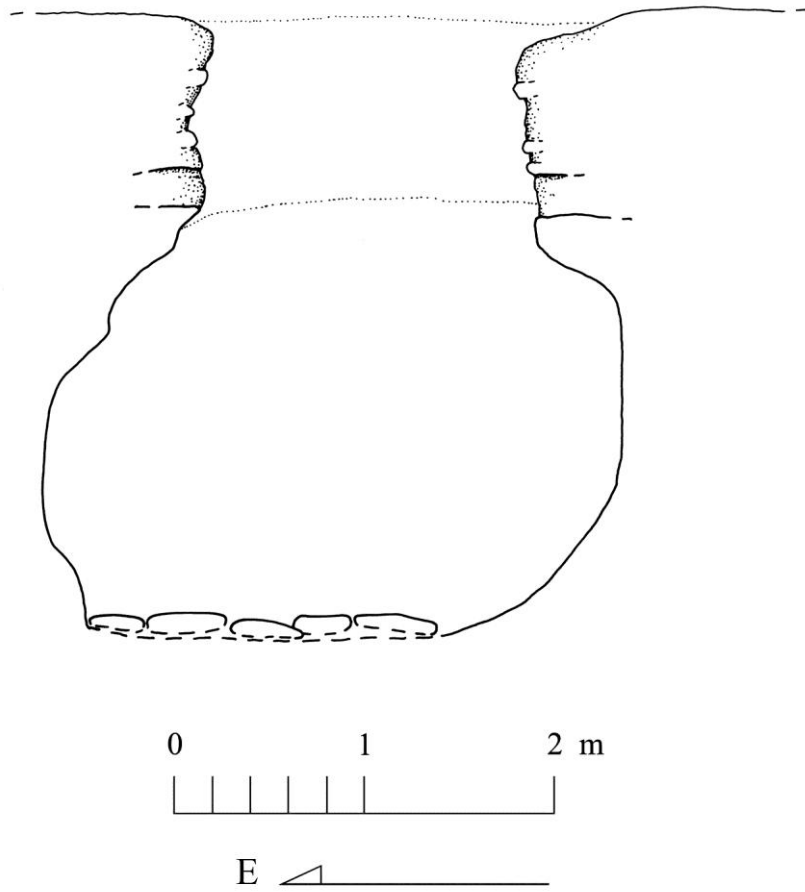


Figure 8: Cross-Section (east-west) of Operation C79E, a chultun excavation.

excv. C79E

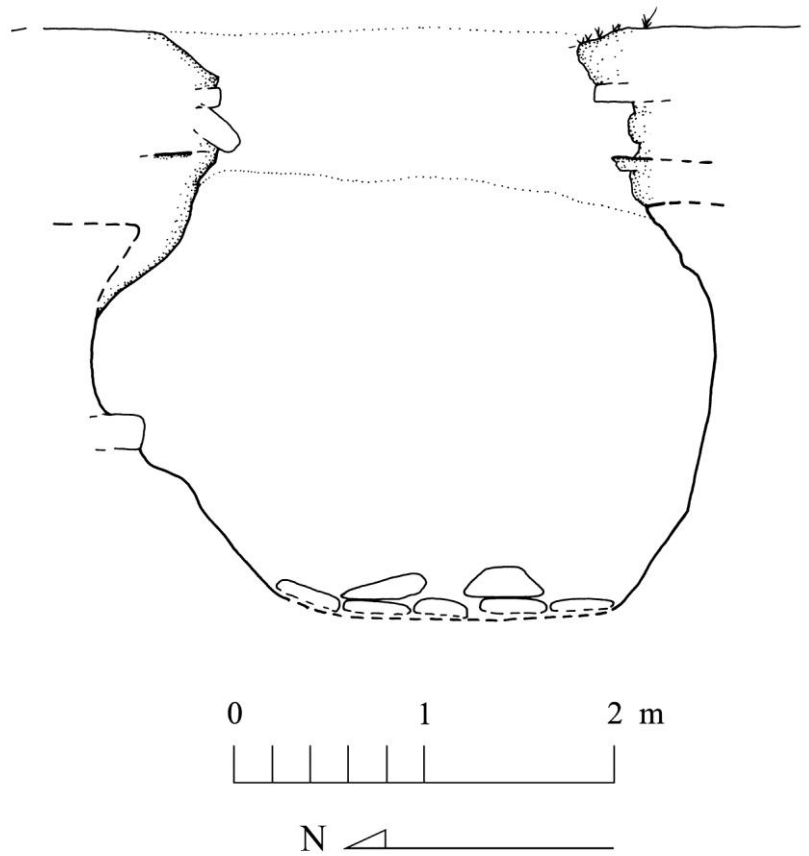


Figure 9: Cross-Section (north-south) of Operation C79E.



Figure 10: Photograph of S.D. C79E-1.

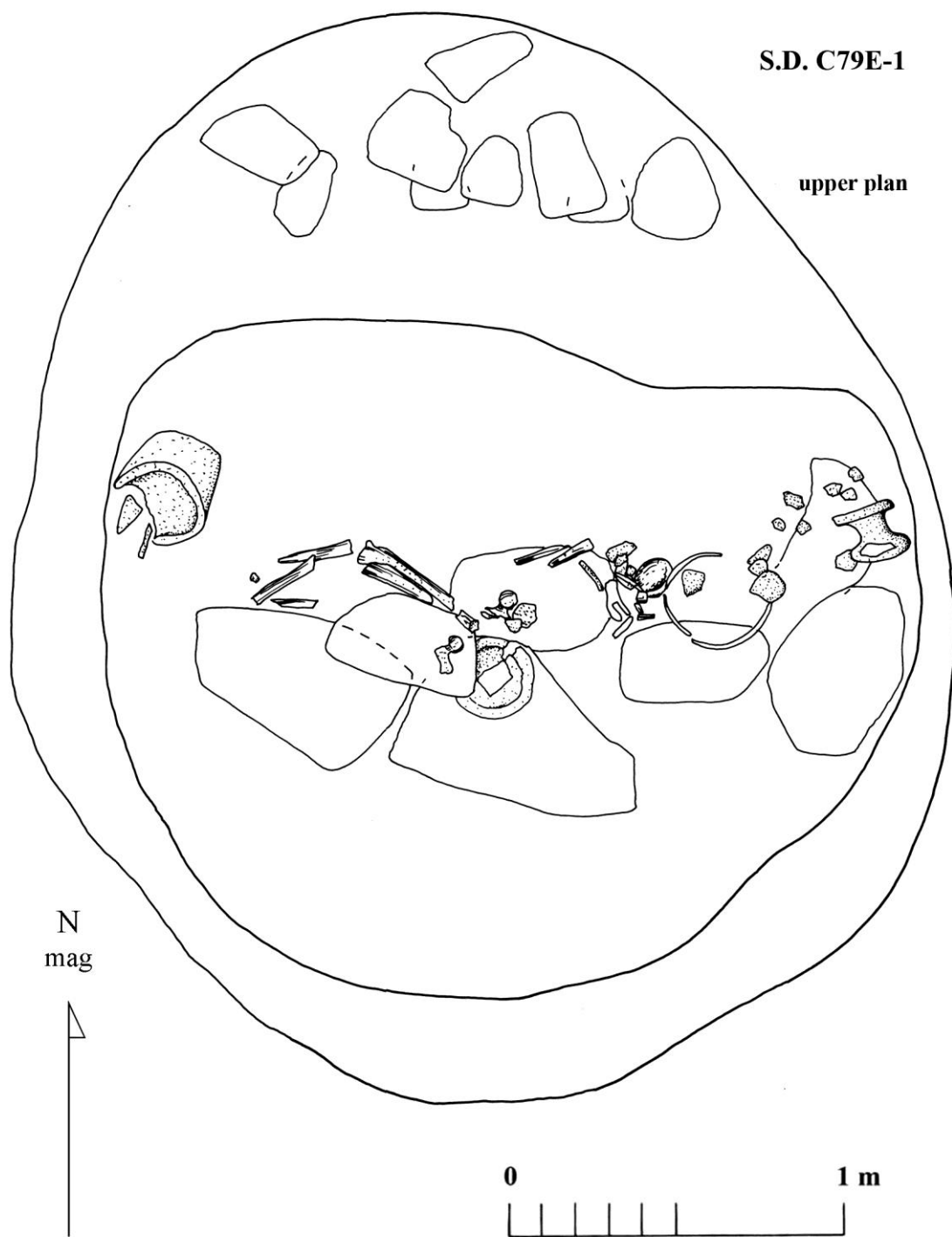


Figure 11: Upper plan of S.D. C79E-1, an interment, at the bottom of the chultun.

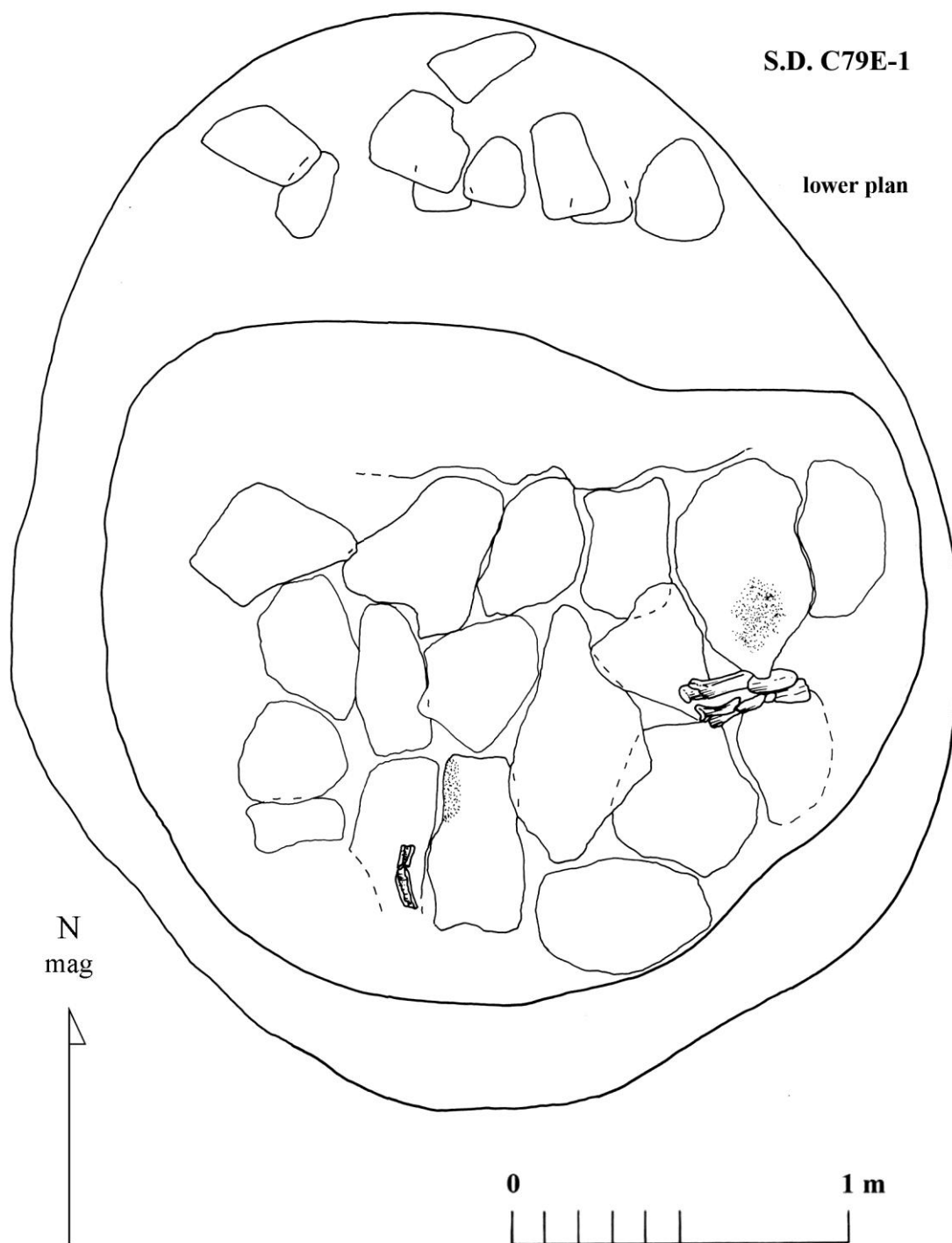


Figure 12: Lower plan of S.D. C79E-1, detailing large stones at the bottom of the chultun.

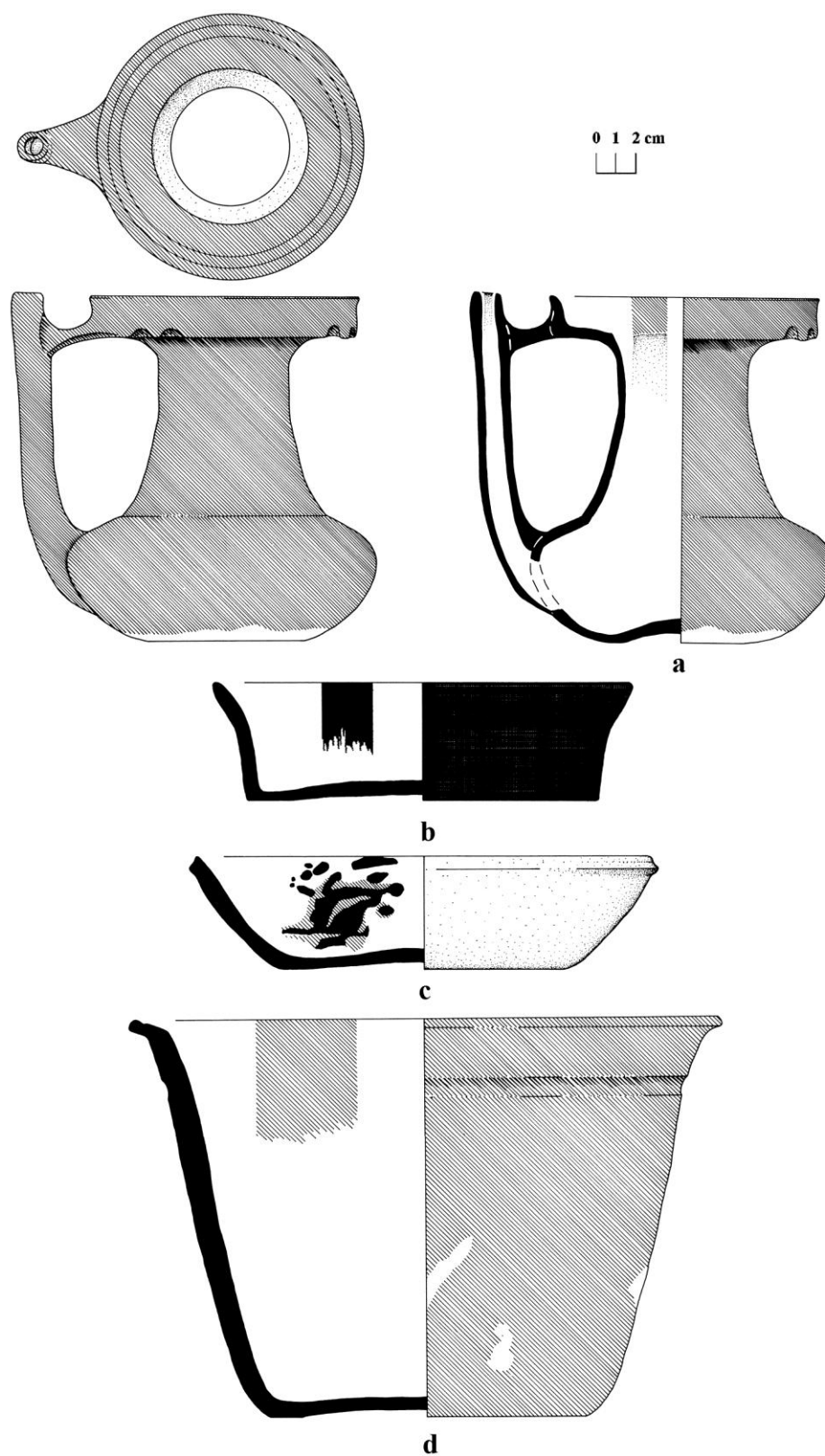


Figure 13: Ceramic vessels from S.D. C79E-1: a. Yesoso Orange-Paste Ware, probably Joventud Red: Sampoperro Variety; b. Chunhinta Black; c. Bucut Multicolor; d. Sierra Red.

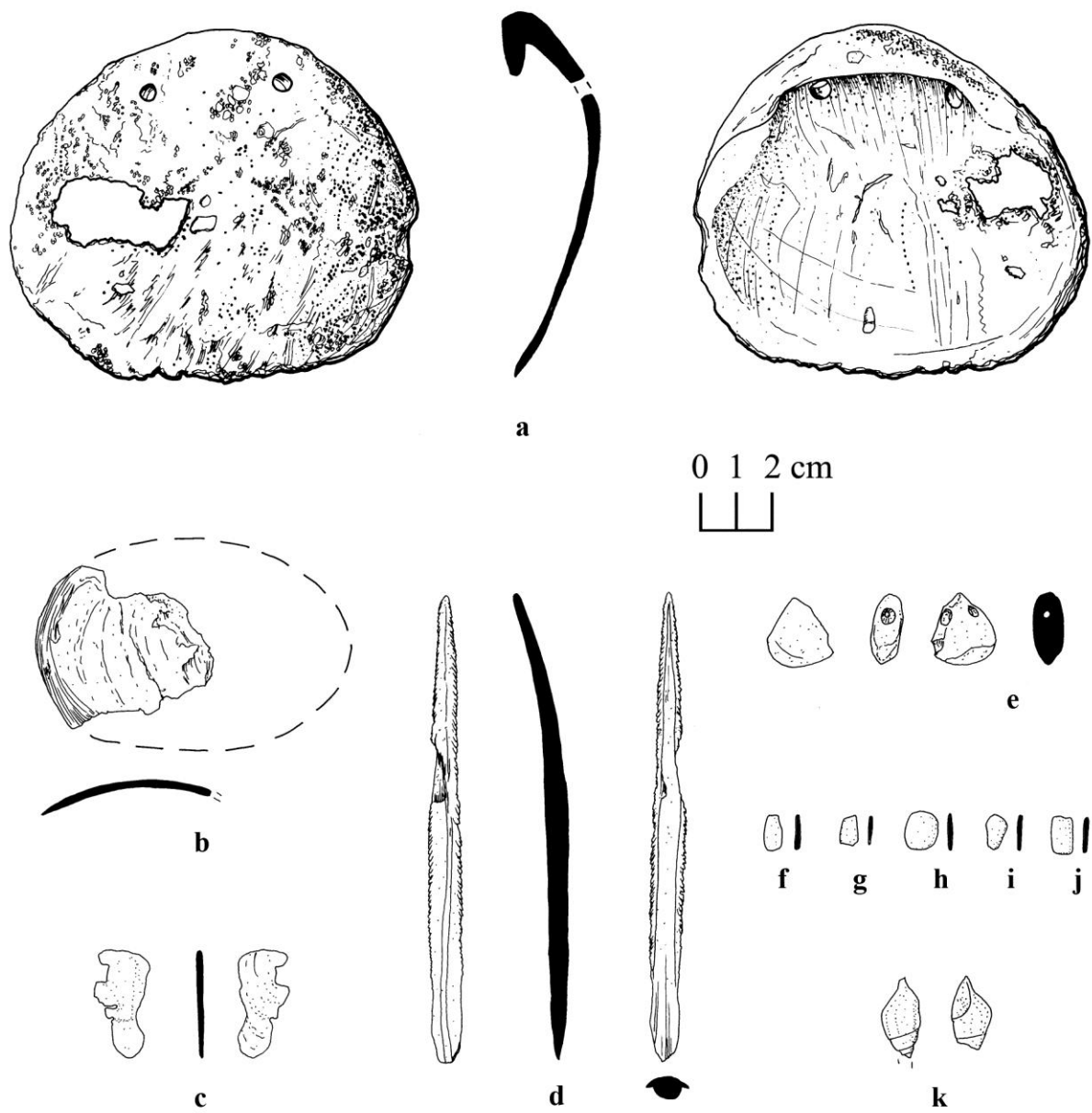


Figure 14: Artifactual materials from S.D. C79E-1: a. worked *spondylus* shell; b., c. marine shell; d. stingray spine; e. jadeite bead; f.-j. pyrite inlays; k. snail shell.

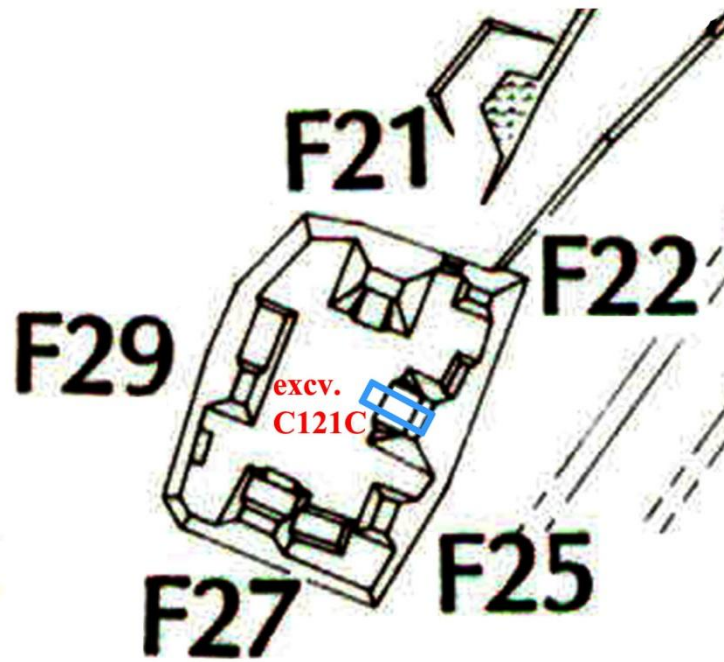


Figure 15: Plan of “Ramon” residential group comprising, Operation C121.



Figure 16: Photograph of Structure F24 and excavation C121C.

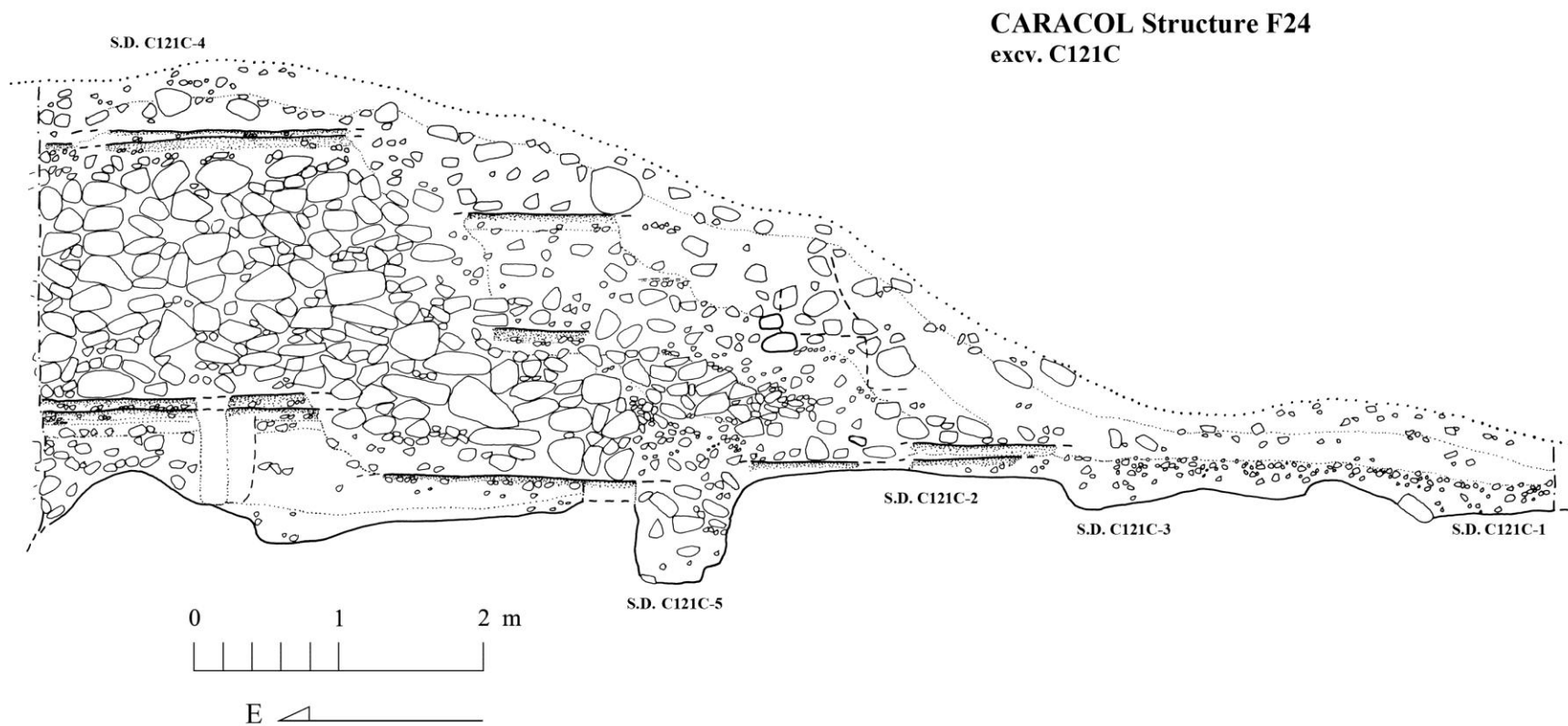
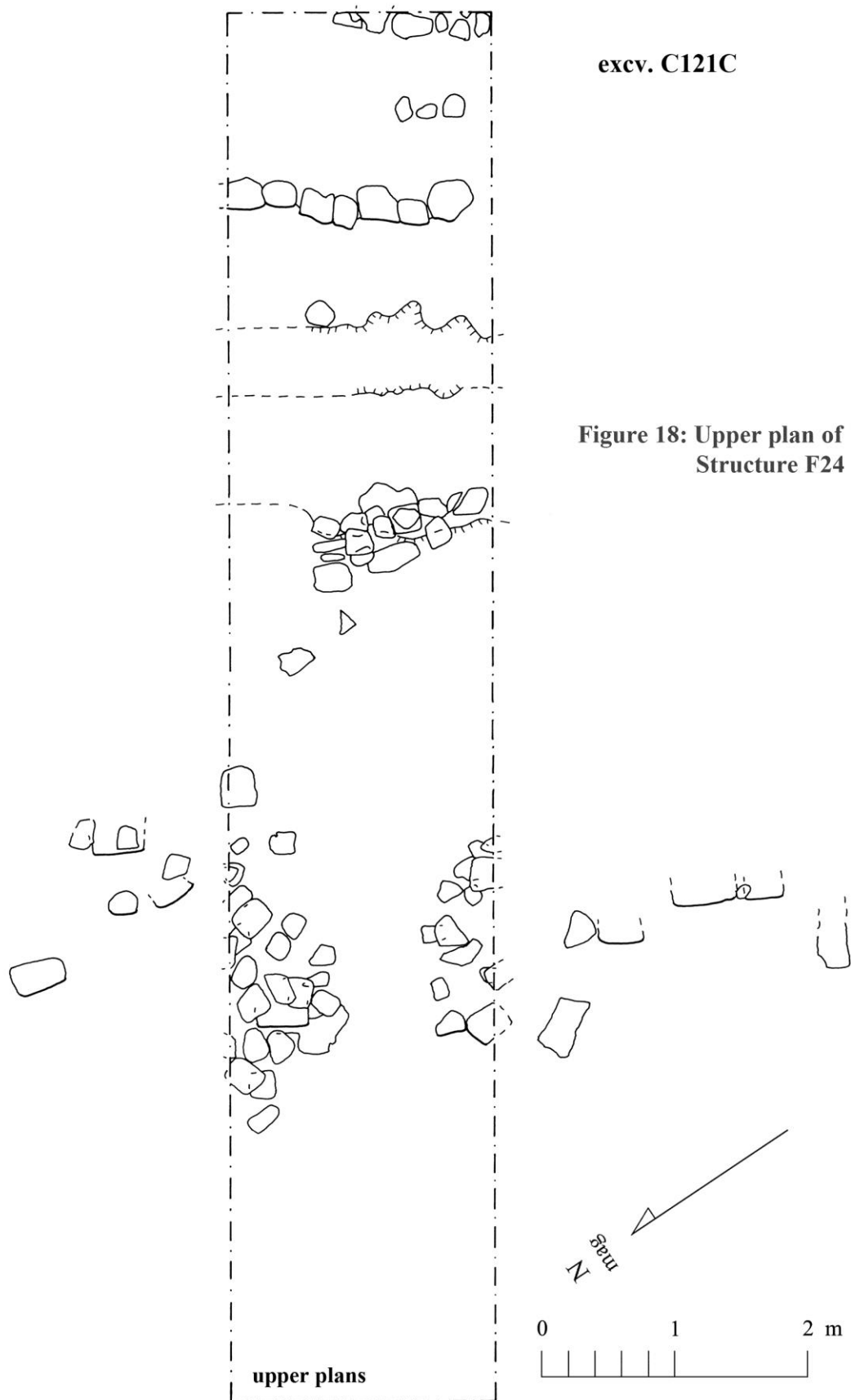
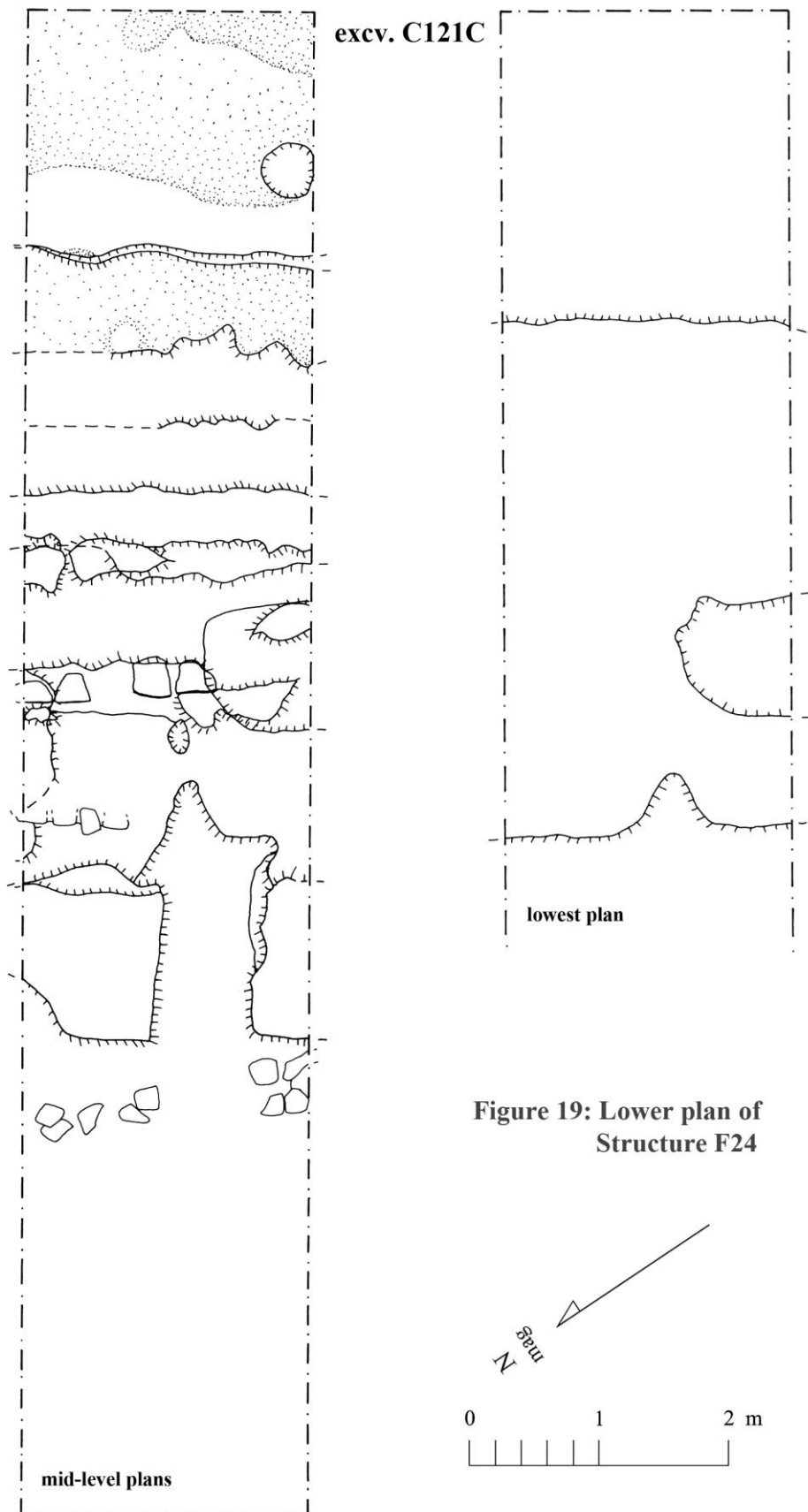


Figure 17: Section through Structure F24, designated Operation C121C.





S.D. C121C-1

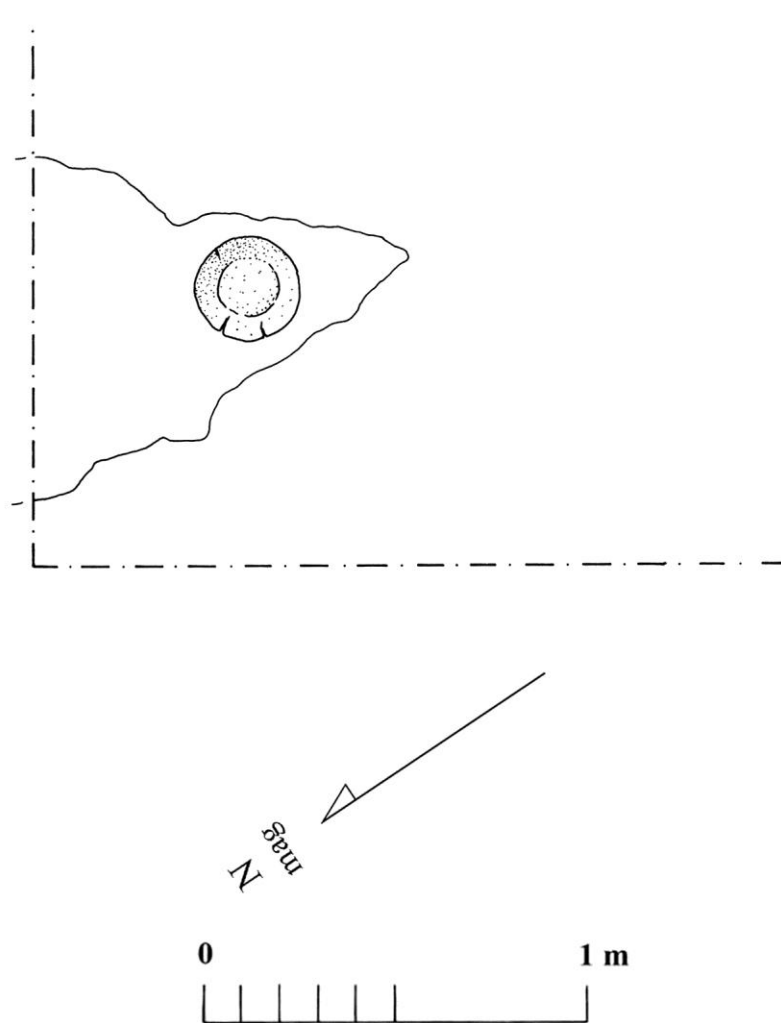
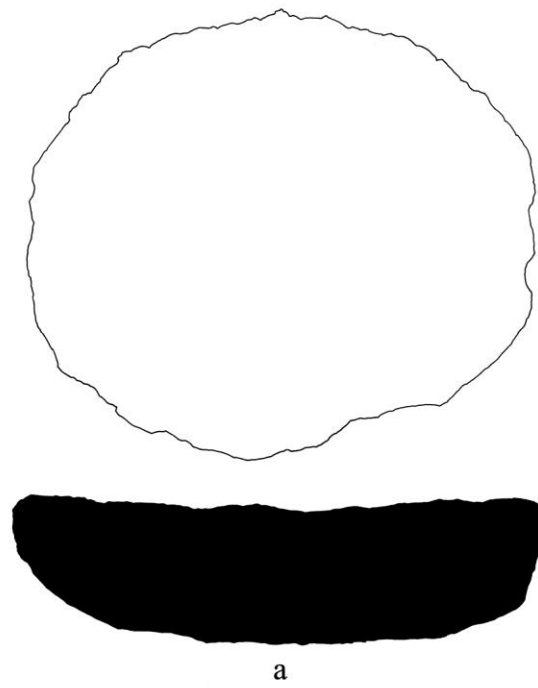


Figure 20: Plan of S.D. C121C-1.



0 1 2 cm

Figure 21: Contents of S.D. C121C-1: a. shaped stone covering the vessel; b. Flor Cream ceramic vessel.

S.D. C121C-2

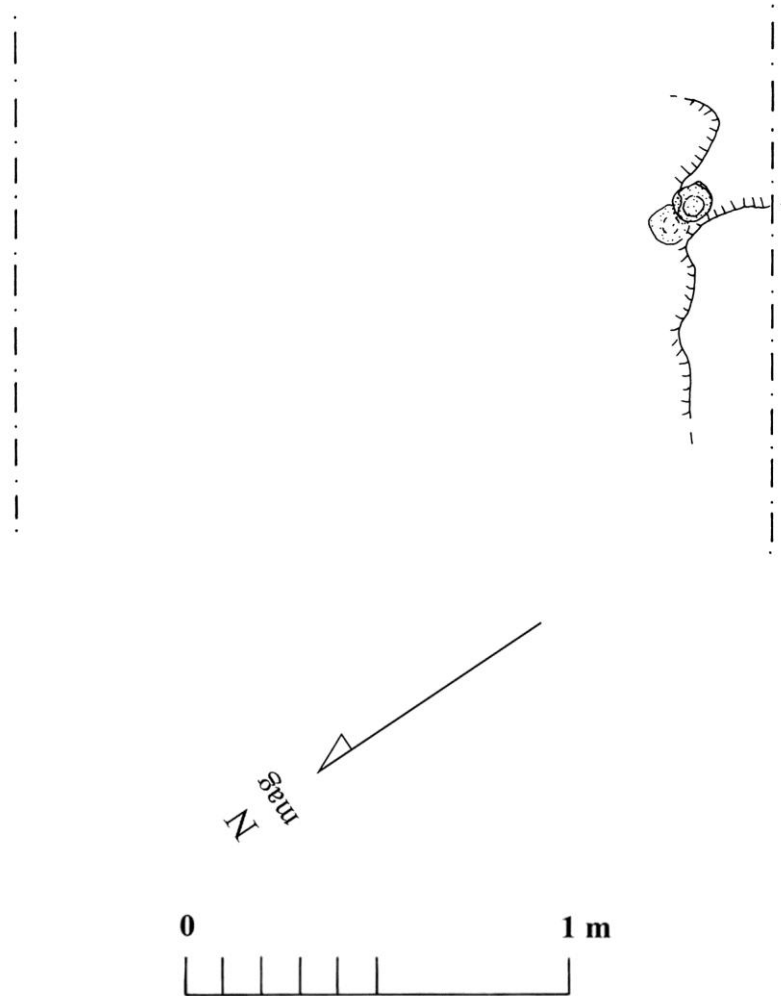


Figure 22: Plan of S.D. C121C-2.

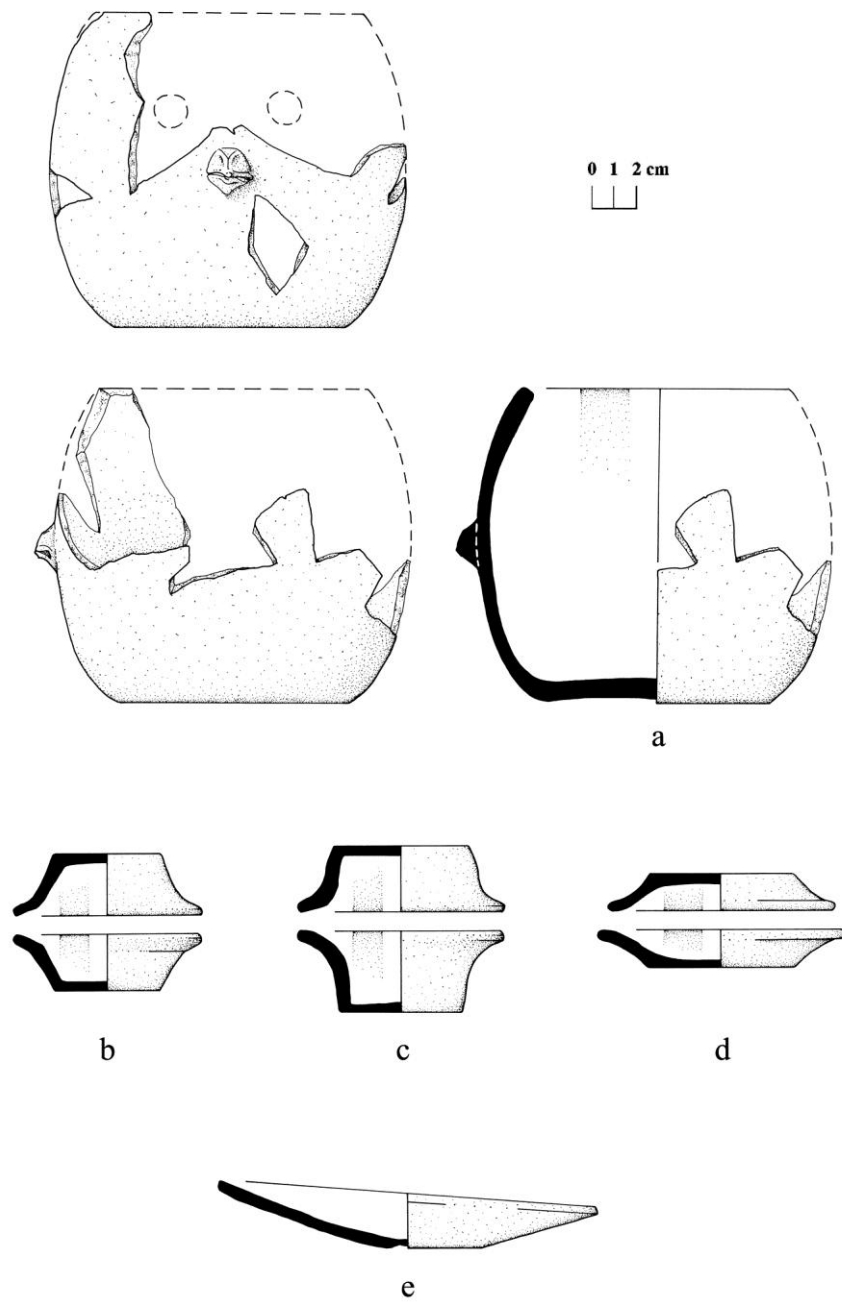


Figure 23: Ceramics related to deposits in Operation C121C: a. Hebe Modeled urn recovered from looter's backdirt; b.-d. Ceiba Unslipped vessels from S.D. C121C-2; e. possibly Valentín Unslipped from S.D. C121C-3.



Figure 24: Photograph of S.D. C121C-3.

S.D. C121C-3

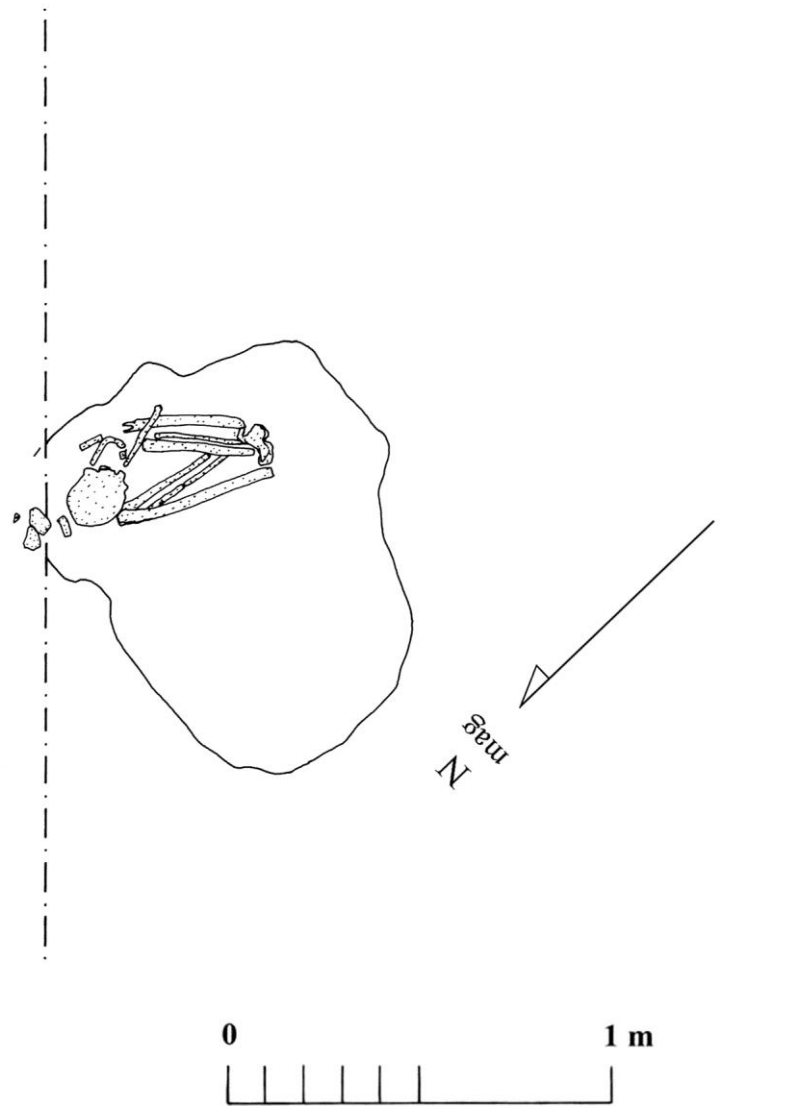


Figure 25: Plan of S.D. C121C-3.

S.D. C121C-4

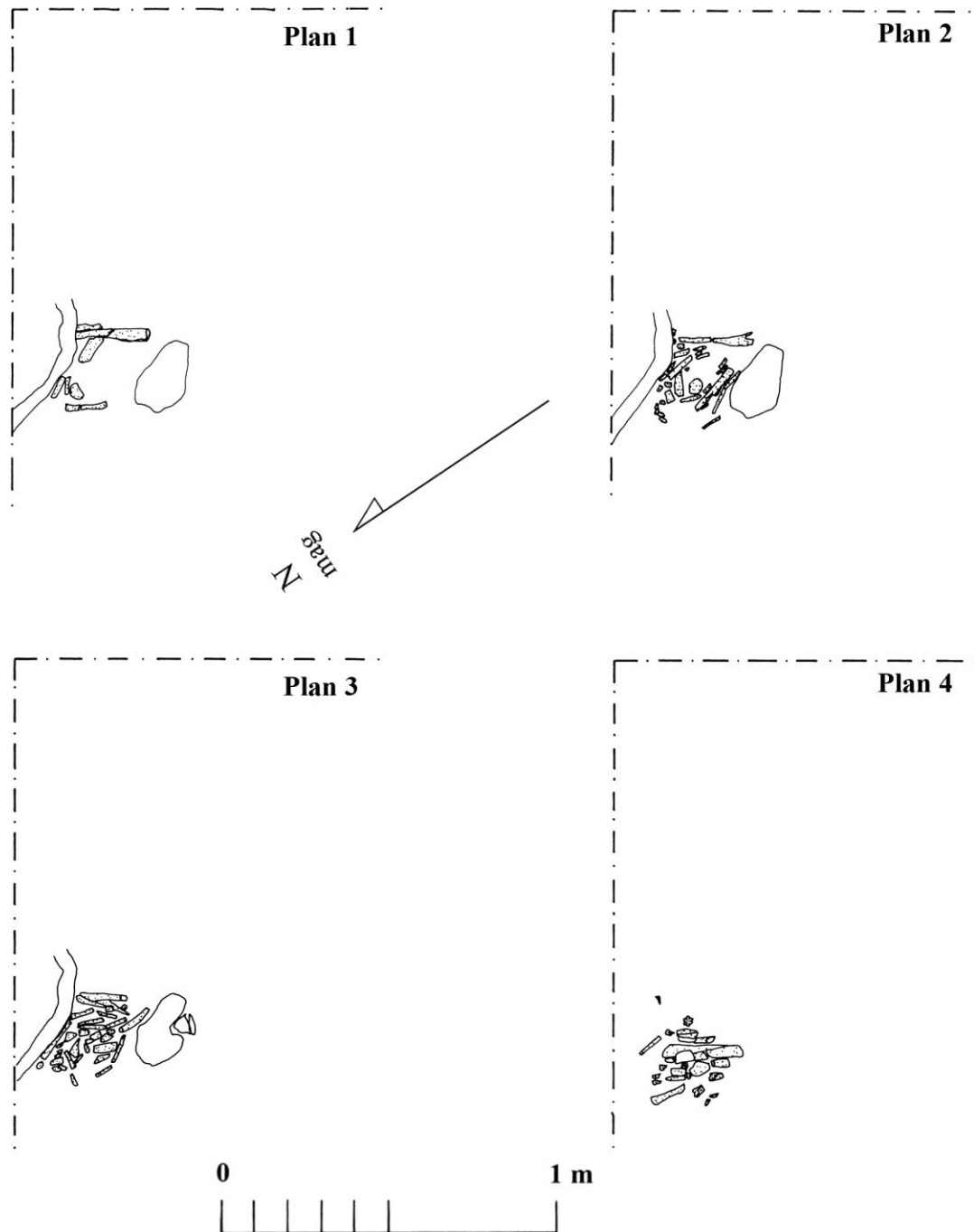


Figure 26: Four sequent plans of S.D. C121C-4.

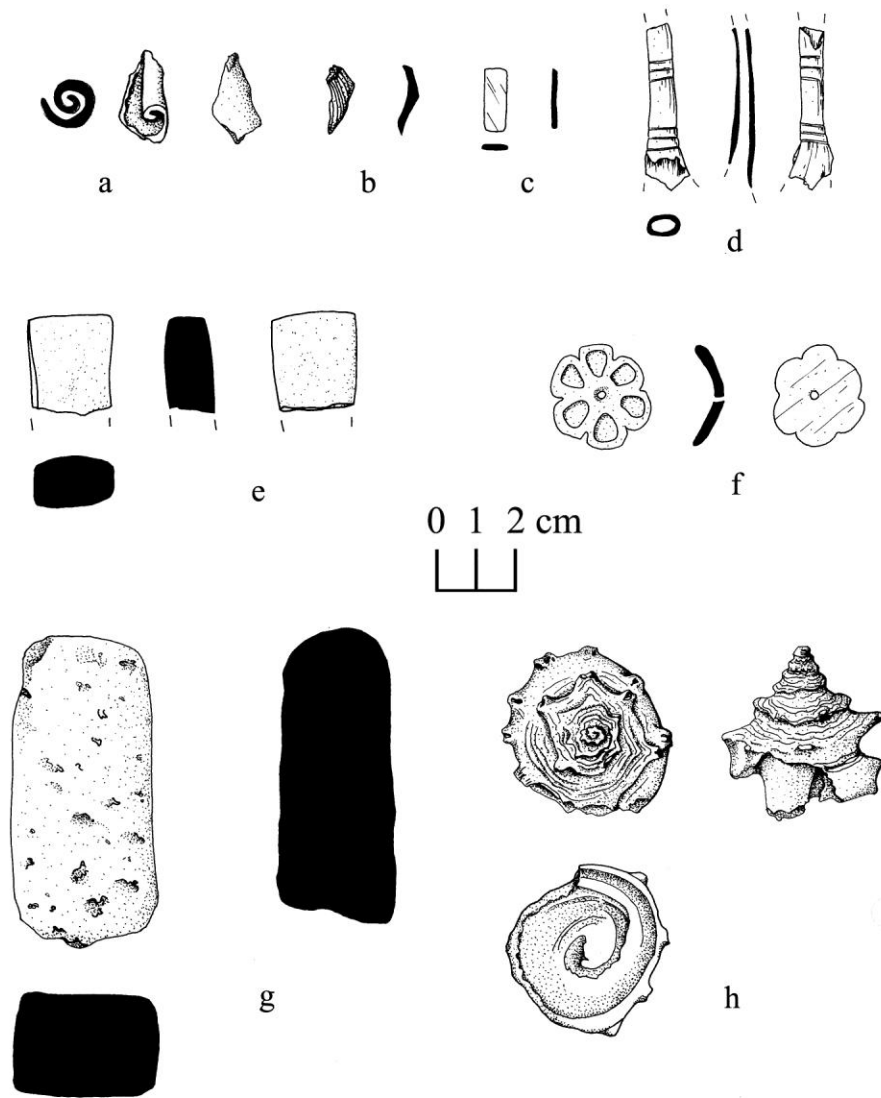


Figure 27: Artifactual materials from Operation C121C: a.-c. worked marine shell; d. worked bone; e., g. limestone bars; f. carved shell flower from S.D. C121C-4; h. worked conch shell.



Figure 28: Photograph of S.D. C121C-5.

S.D. C121C-5

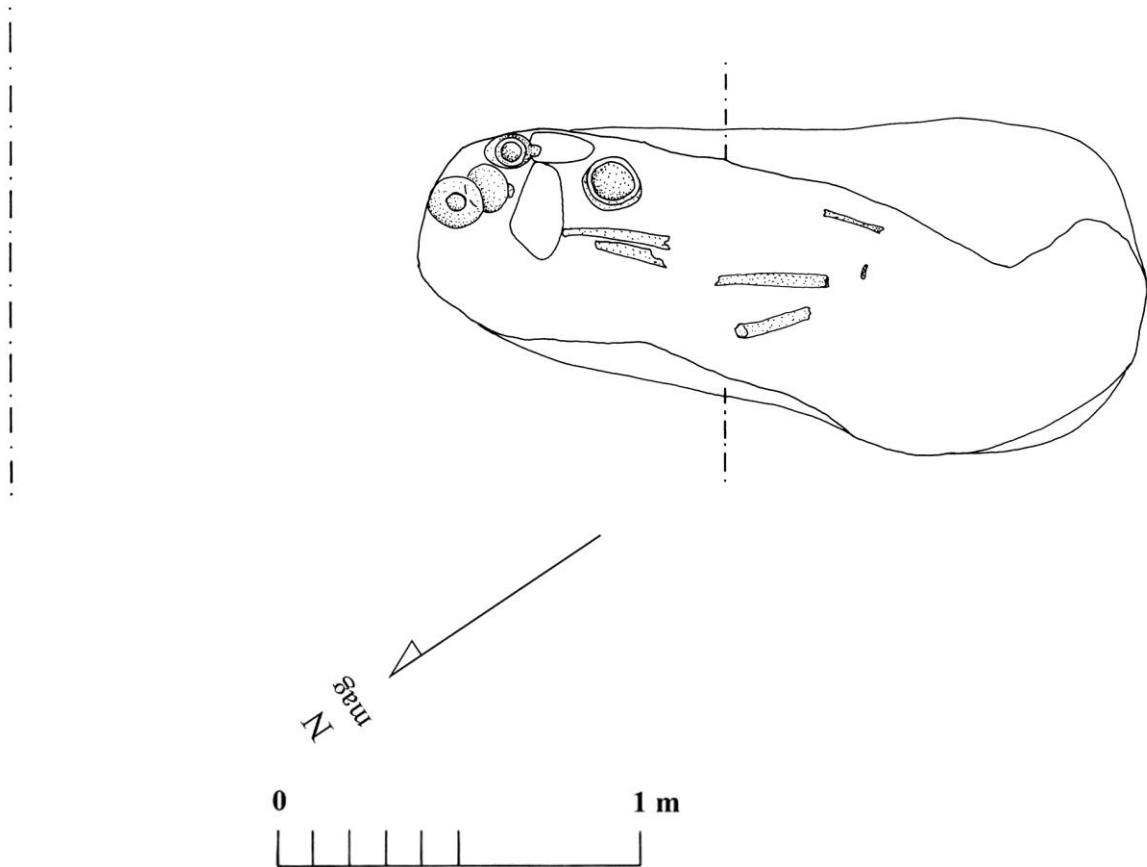


Figure 29: Plan of S.D. C121C-5.

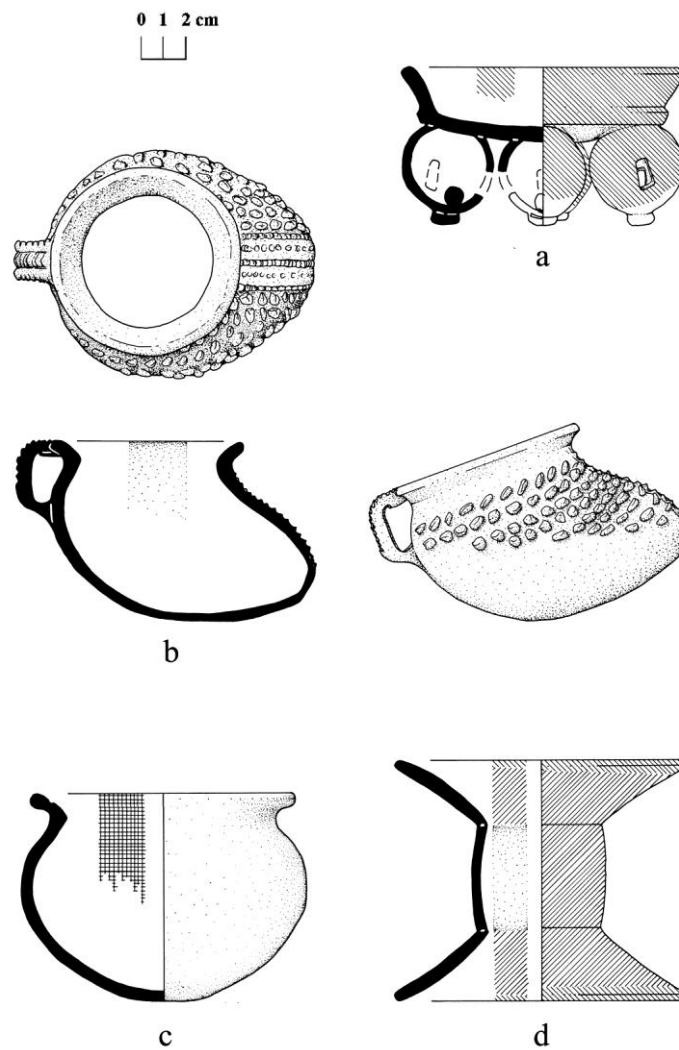


Figure 30: Ceramic vessels from S.D. C121C-5: a. Sierra Red; b. probably Corriental Appliqued; c. possibly Xtabcab Incised; d. Guacamallo Red-on-orange.

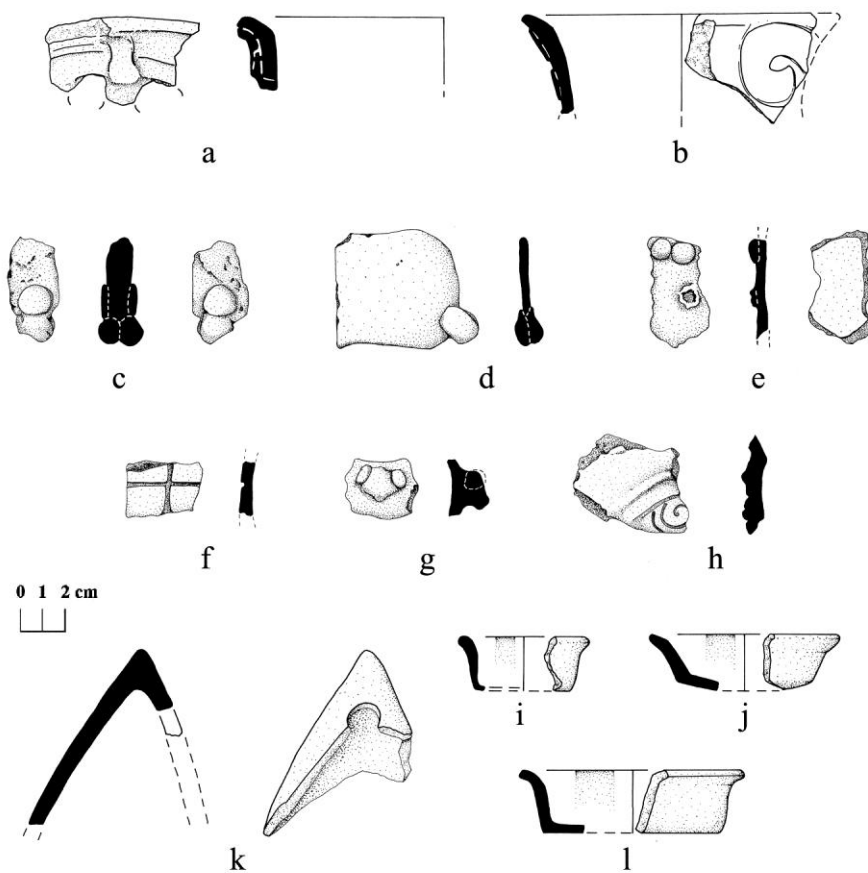


Figure 31: Partial censers and cache vessels from Operation C121C: a., b., h. possibly Candelario Appliqued; c., d., e. Pedregal Modeled; f. unnamed incised; g. undesignated appliqué; k. probably Miseria Appliqued; i.-l. CeibaUnslipped.

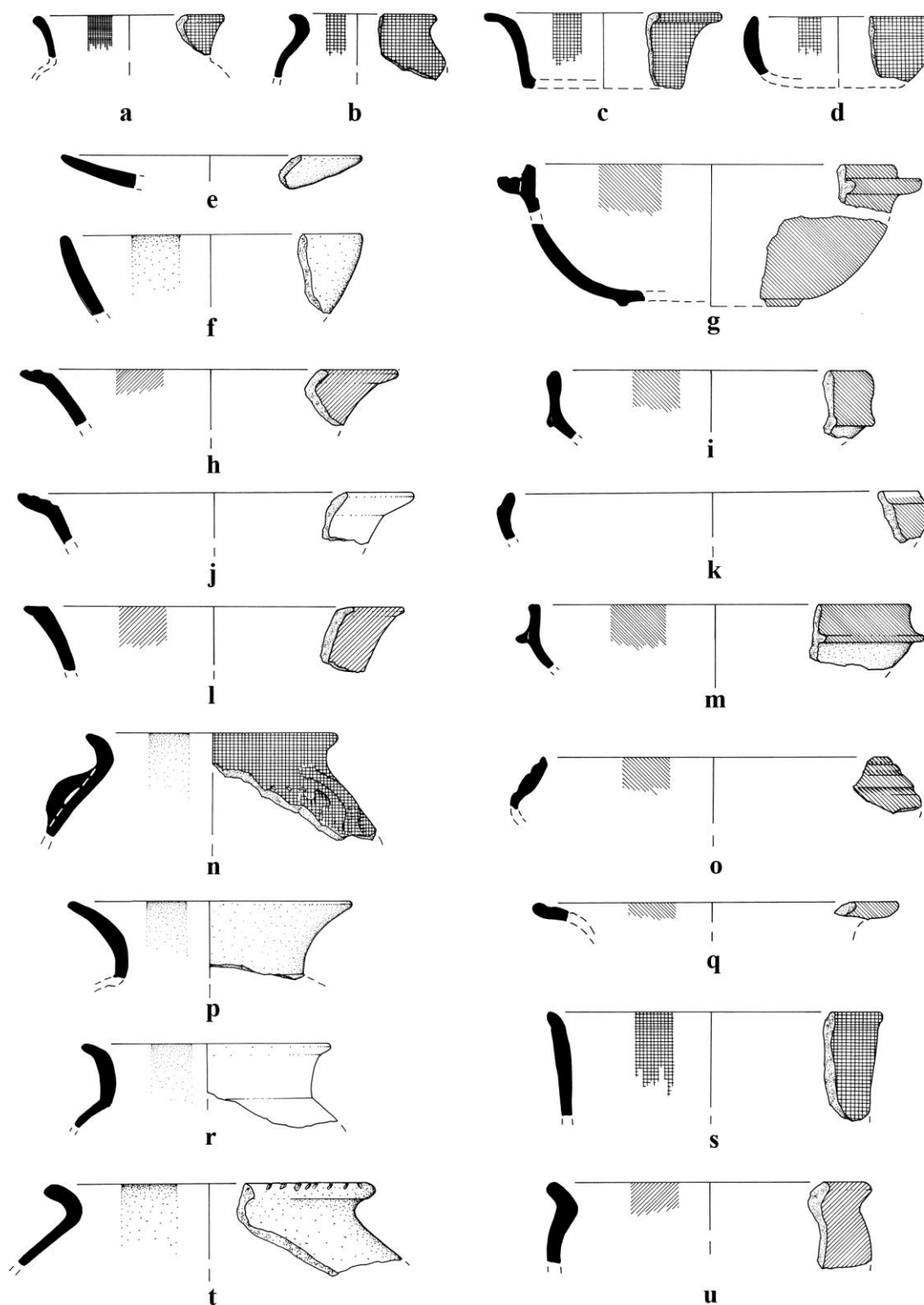


Figure 32: Sherd materials from the lower levels of Operation C121C: a., b., c., d., s. Boxcay Brown; e., f., p., r., ee. Achiotés Unslipped; g., i., k., m., o., q., cc., dd. Sierra Red; h, l., u., w. Aguila Orange; j., v., x., y. Flor Cream; n. possibly Corriental applied; t. possibly Negroman Punctate-Incised; z. Lagartos Punctate; aa., bb., ff. Mut Red-on-brown; gg. Sacluc Black-on-orange.

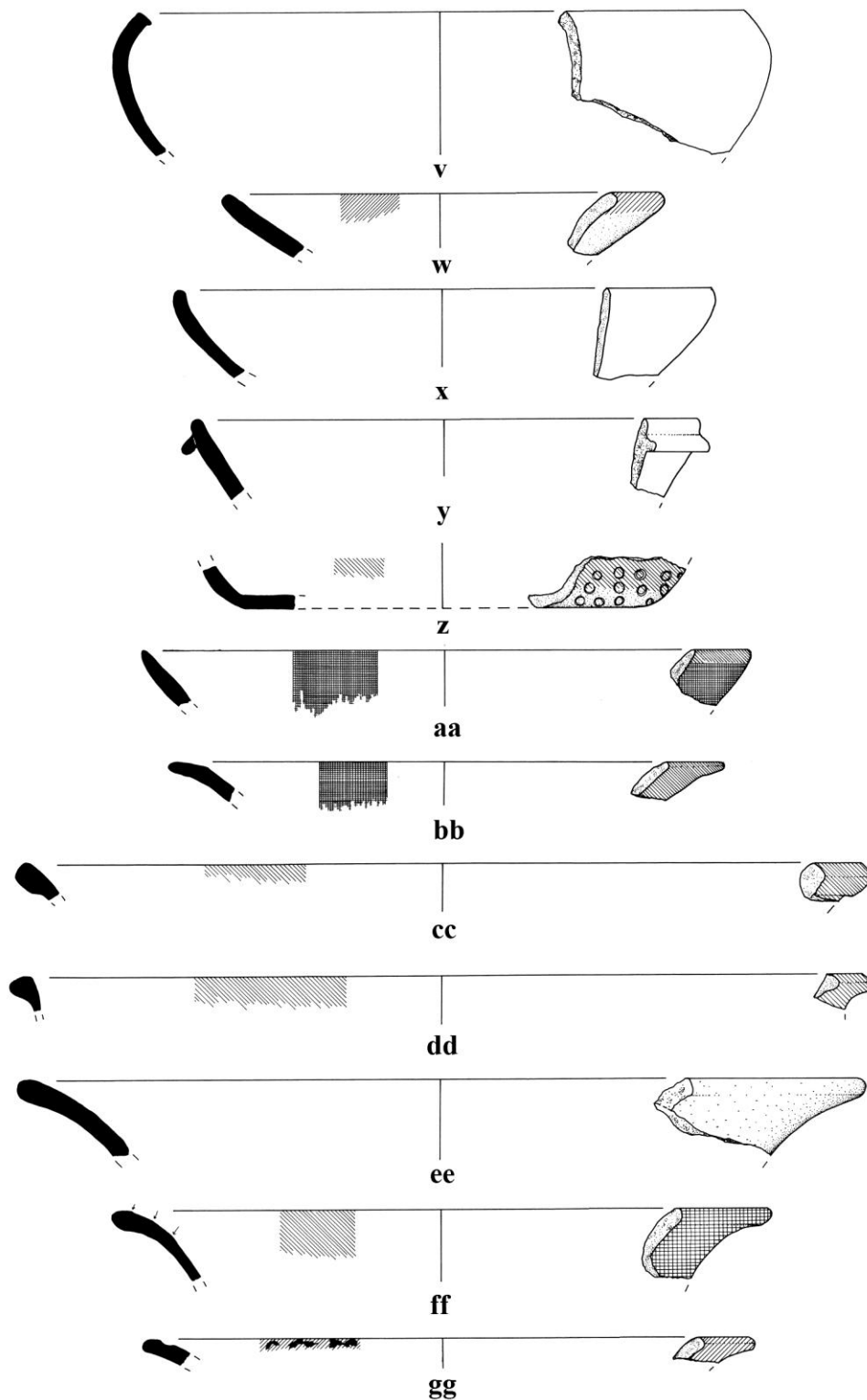


Figure 32: Sherd materials from the lower levels of Operation C121C: a., b., c., d., s. Boxcay Brown; e., f., p., r., ee. Achiotes Unslipped; g., i., k., m., o., q., cc., dd. Sierra Red; h, l., u., w. Aguila Orange; j., v., x., y. Flor Cream; n. possibly Corriental applied; t. possibly Negroman Punctate-Incised; z. Lagartos Punctate; aa., bb., ff. Mut Red-on-brown; gg. Sacluc Black-on-orange.

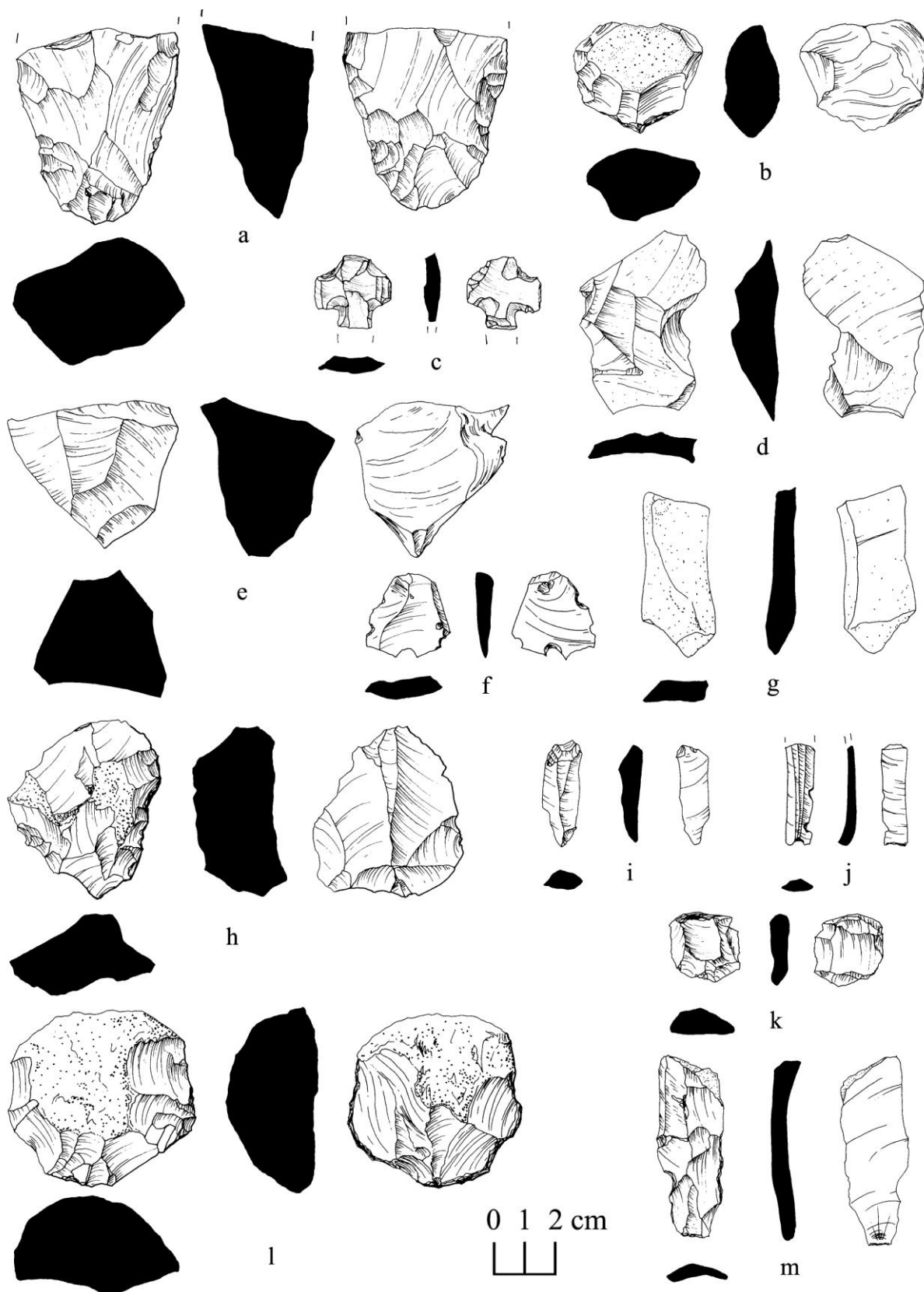


Figure 33: Lithic materials from Operation C121C: a., b., d., e., h., i., l., m. chert; c., f., j. k. obsidian; g. worked slate.

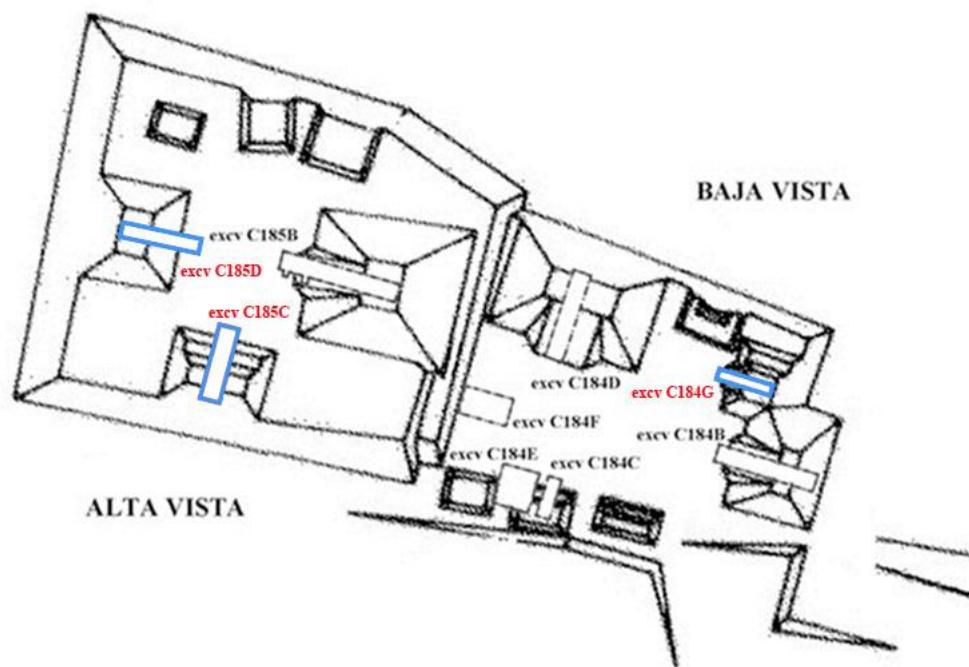


Figure 34: Plan of Alta and Baja Vista, showing locations of 2011 excavations relative to the 2010 excavations.



Figure 35: Photograph of Structure F38.

CARACOL Structure F38
excv. C184G

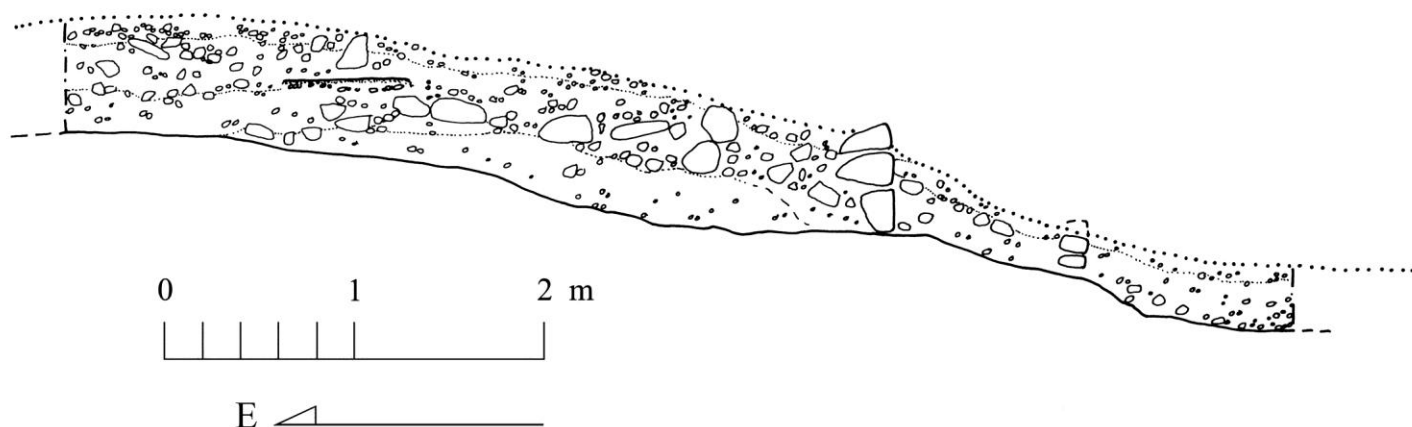


Figure 36: Section through Structure F38, designated Operation C184G.

excv. C184G

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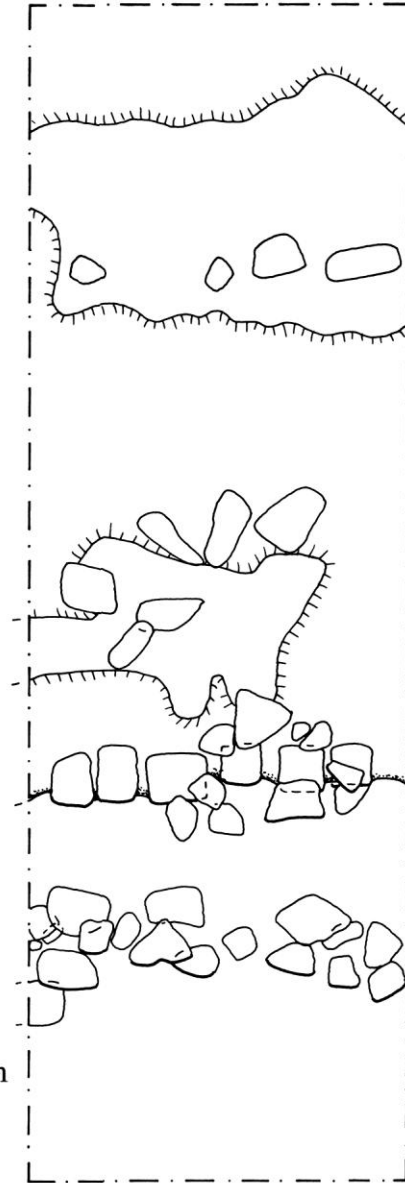


Figure 37: Plan of Operation C184G.

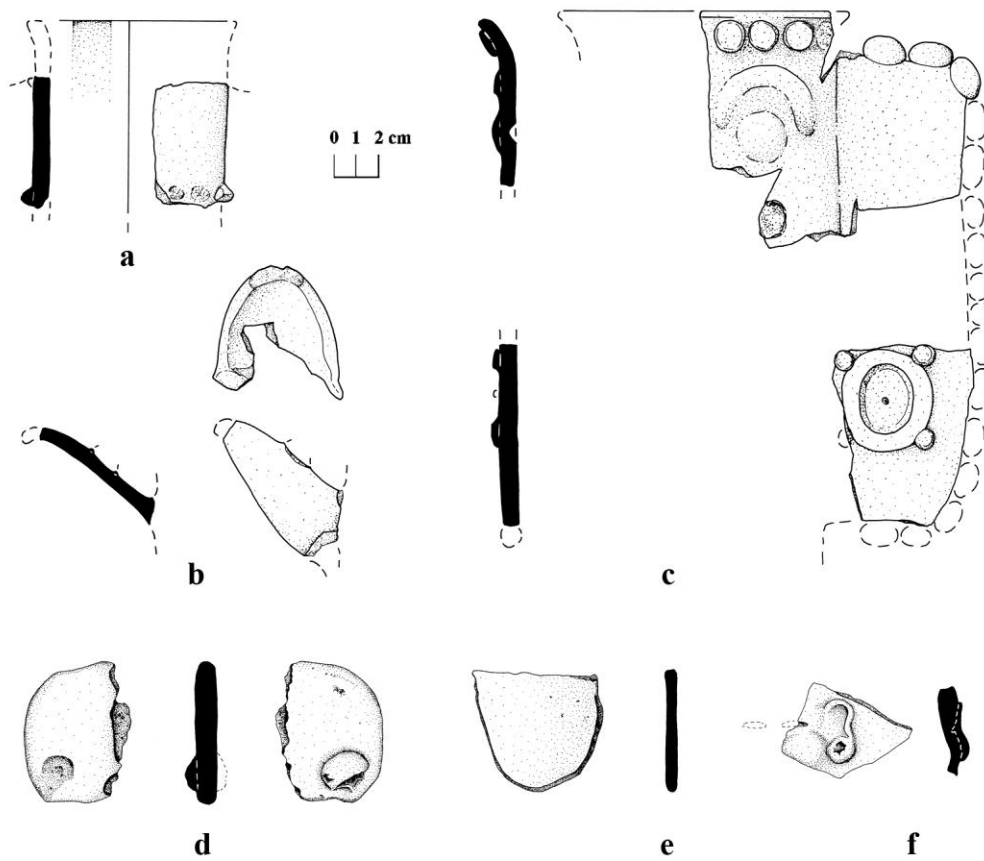


Figure 38: Censerware from Operation C184G: a.-e. Pedregal Modeled; f. undesignated type.

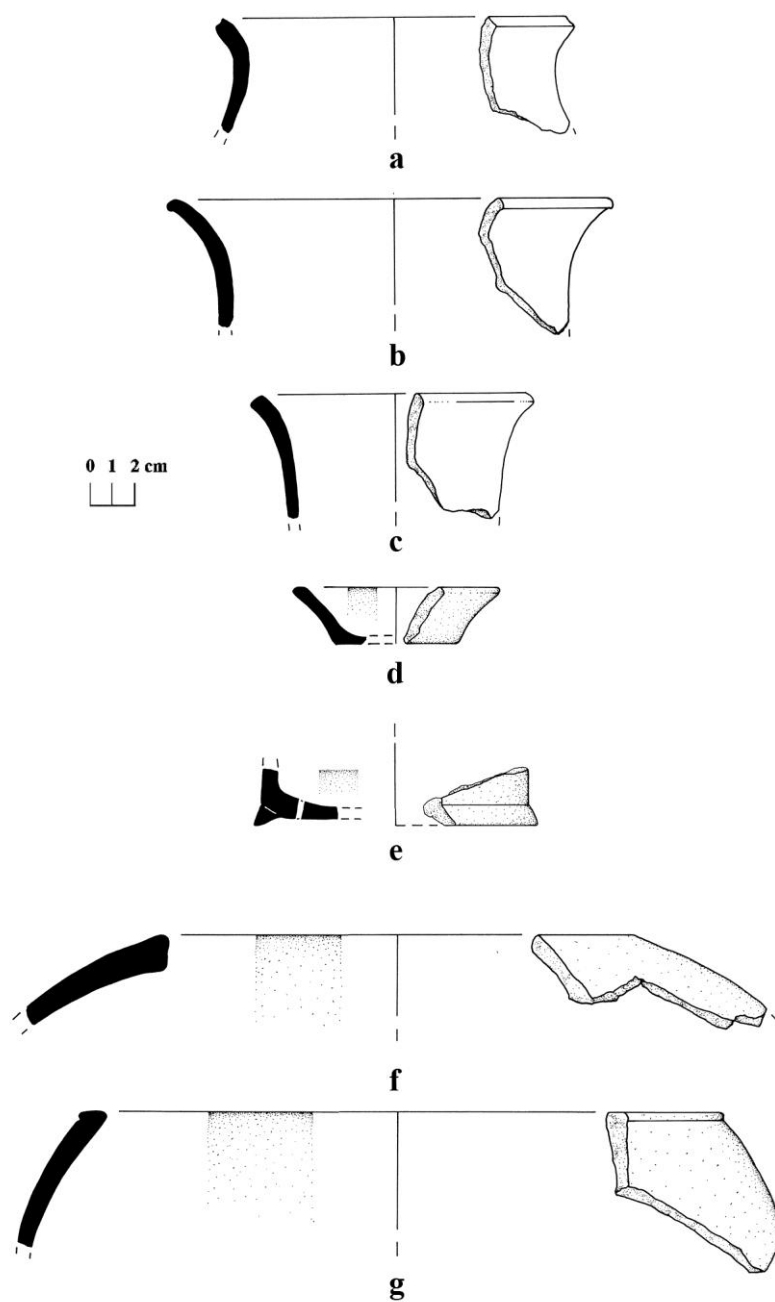


Figure 39: Sherd material from Operation C184G: a. b., c., f., g. Cambio Unslipped; d. Ceiba Unslipped; e. unnamed type.

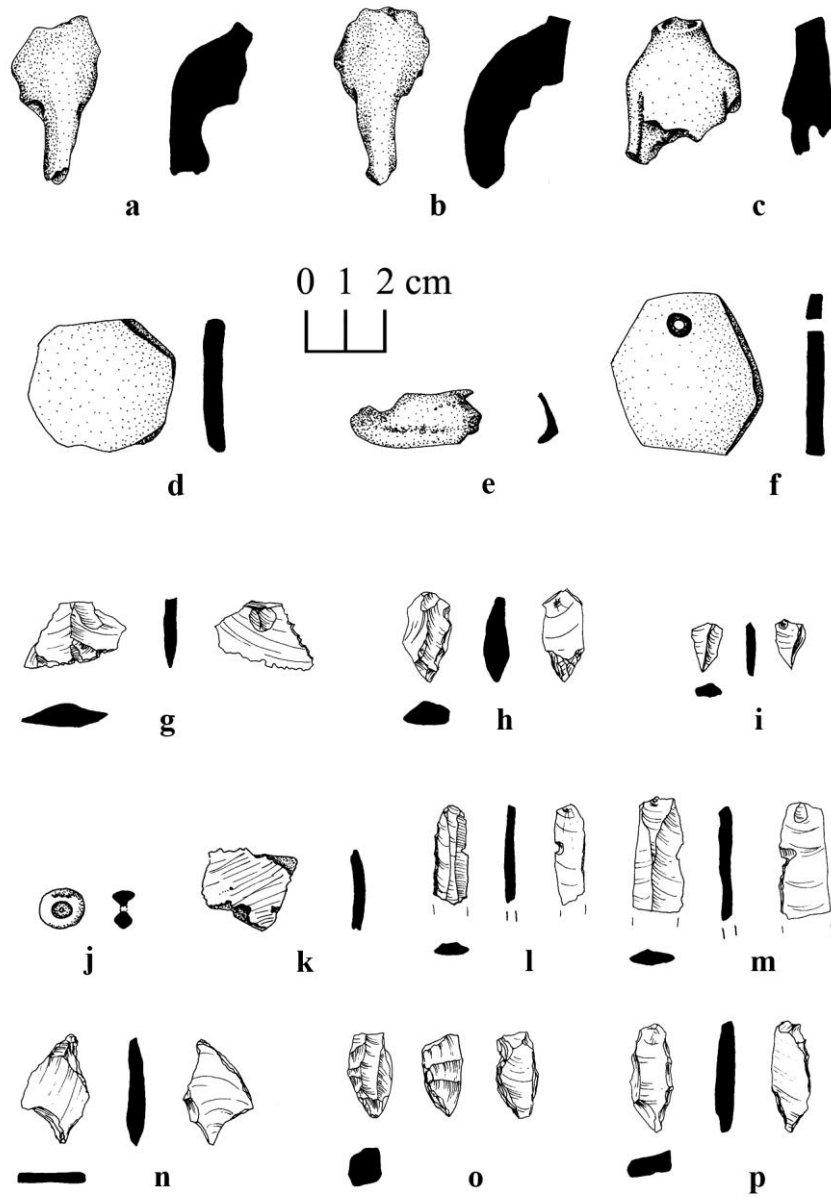


Figure 40: Artifactual material from Operation C184G: a.-c. ceramic figurine fragments; d.-f. shaped sherds; g., i., l., m. obsidian; h., n.-p. chert; j. jadeite bead; k. marine shell.



Figure 41: Photograph of Structure F34 and Operation C185C.

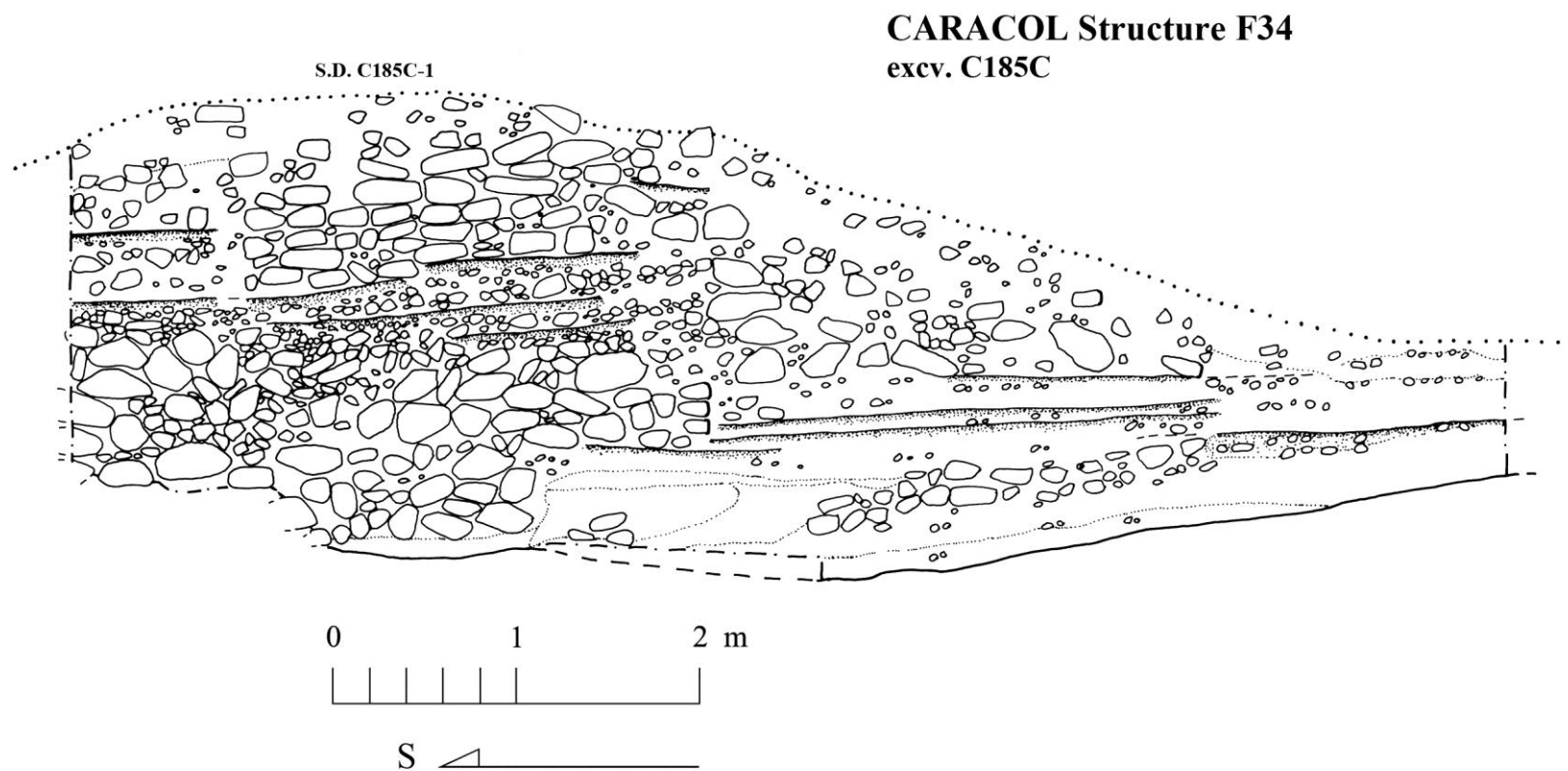


Figure 42: Section through Structure F34, designated Operation C185C.

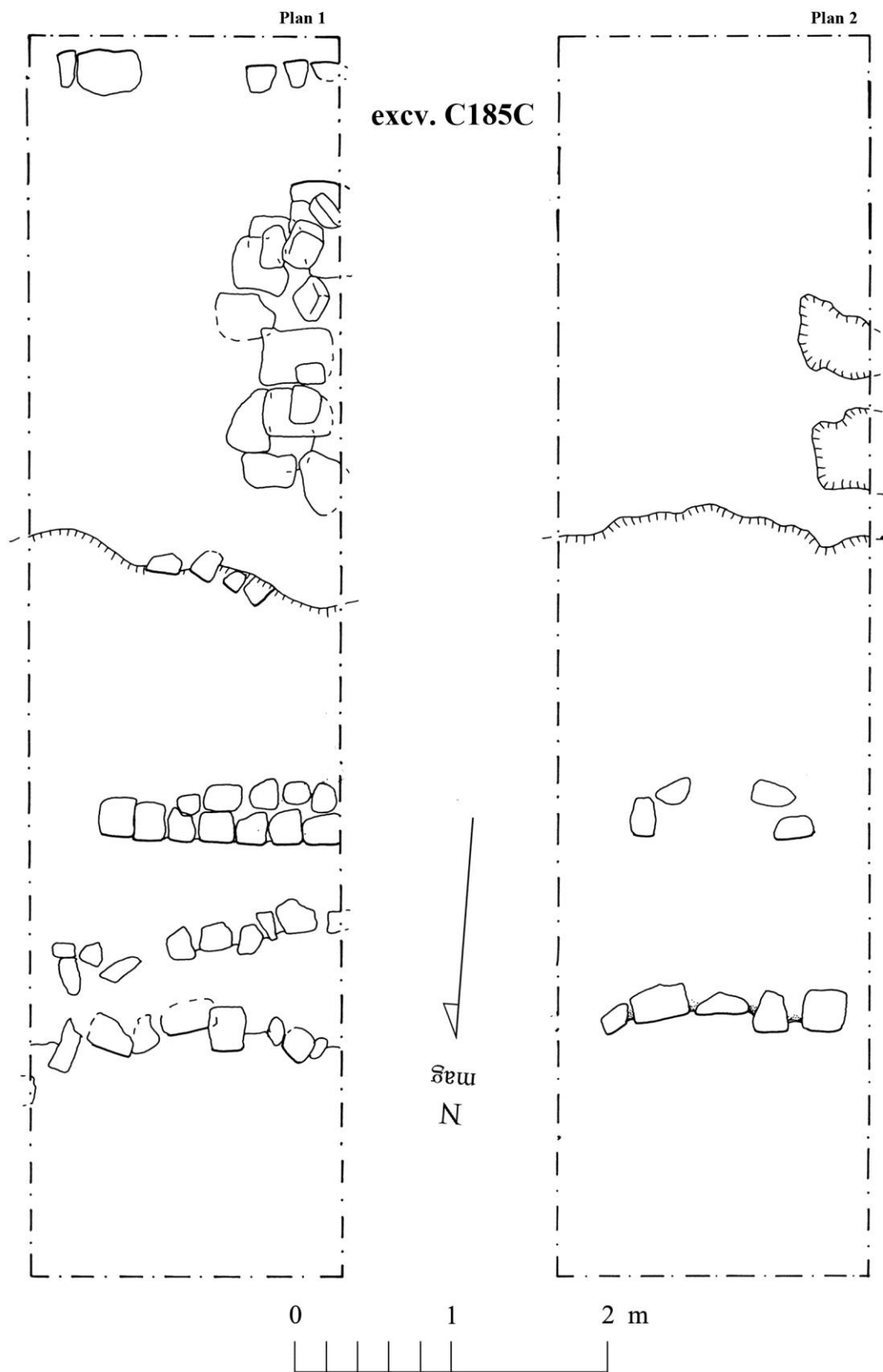


Figure 43: Upper plans for Operation C185C.

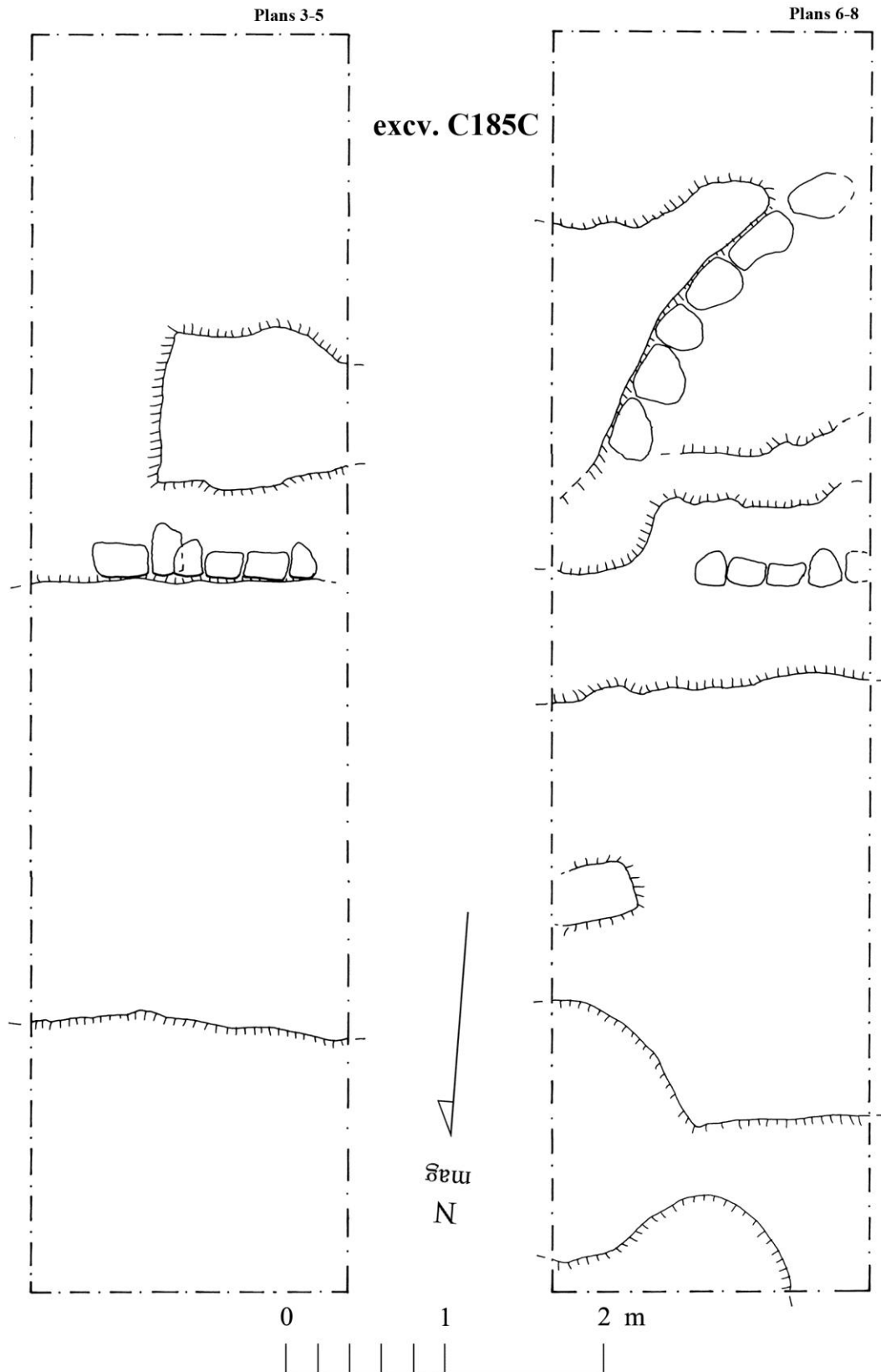


Figure 44: Lower plans for Operation C185C.



Figure 45: Photograph of S.D. C185C-1.

S. D. C185C-1

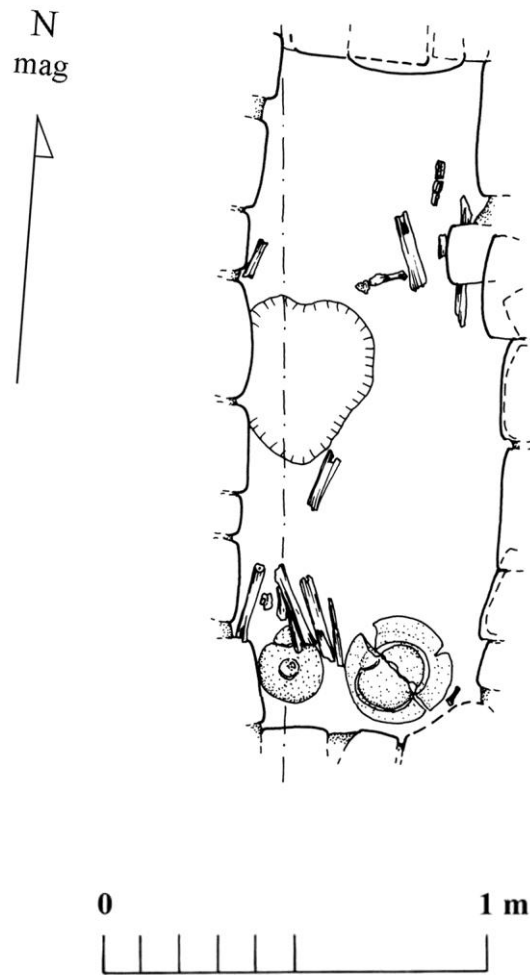
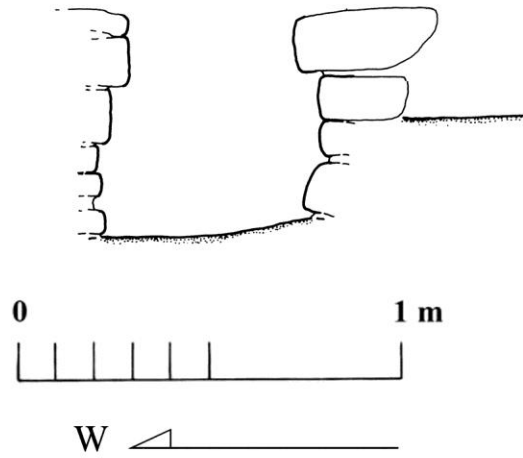


Figure 46: Plan of S.D. C185C-1.

S.D. C185C-1



S.D. C185C-1

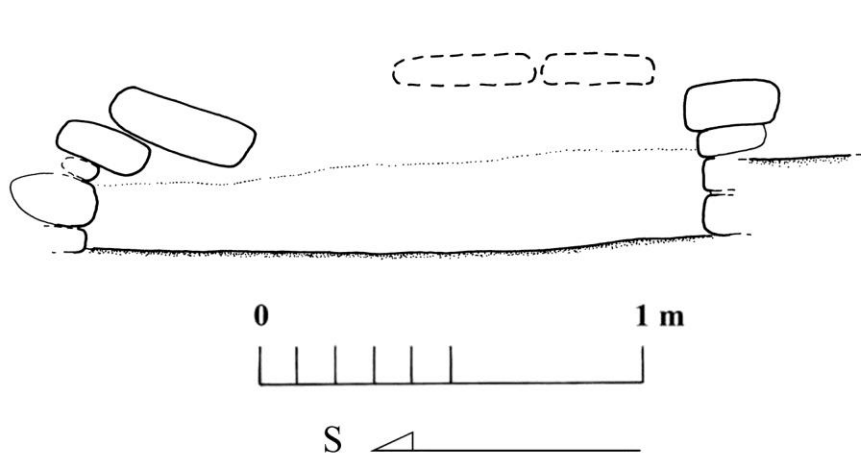


Figure 47: Cross-sections of the S.D. C185C-1 crypt.

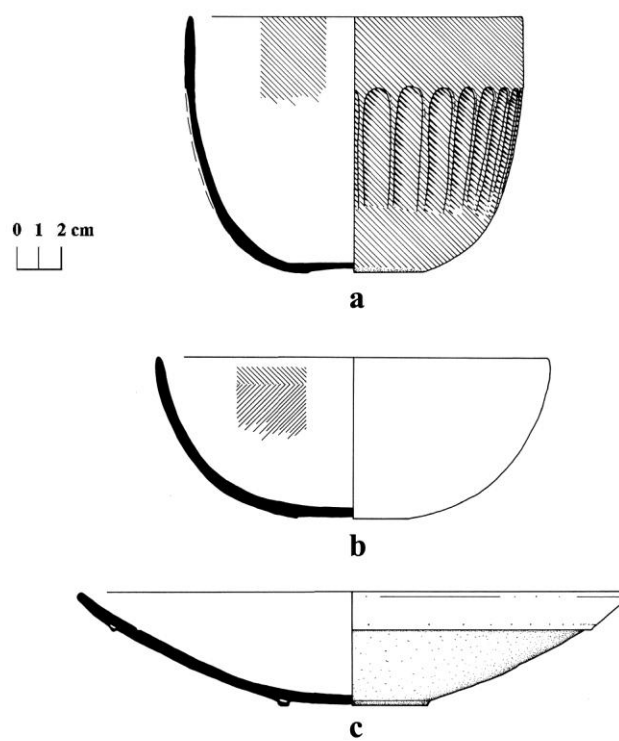


Figure 48: Ceramic vessels associated with S.D. C185C-1: a. Vista Fluted; b. probably Saxche Orange-Polychrome; c. probably Pajarito Orange-Polychrome.

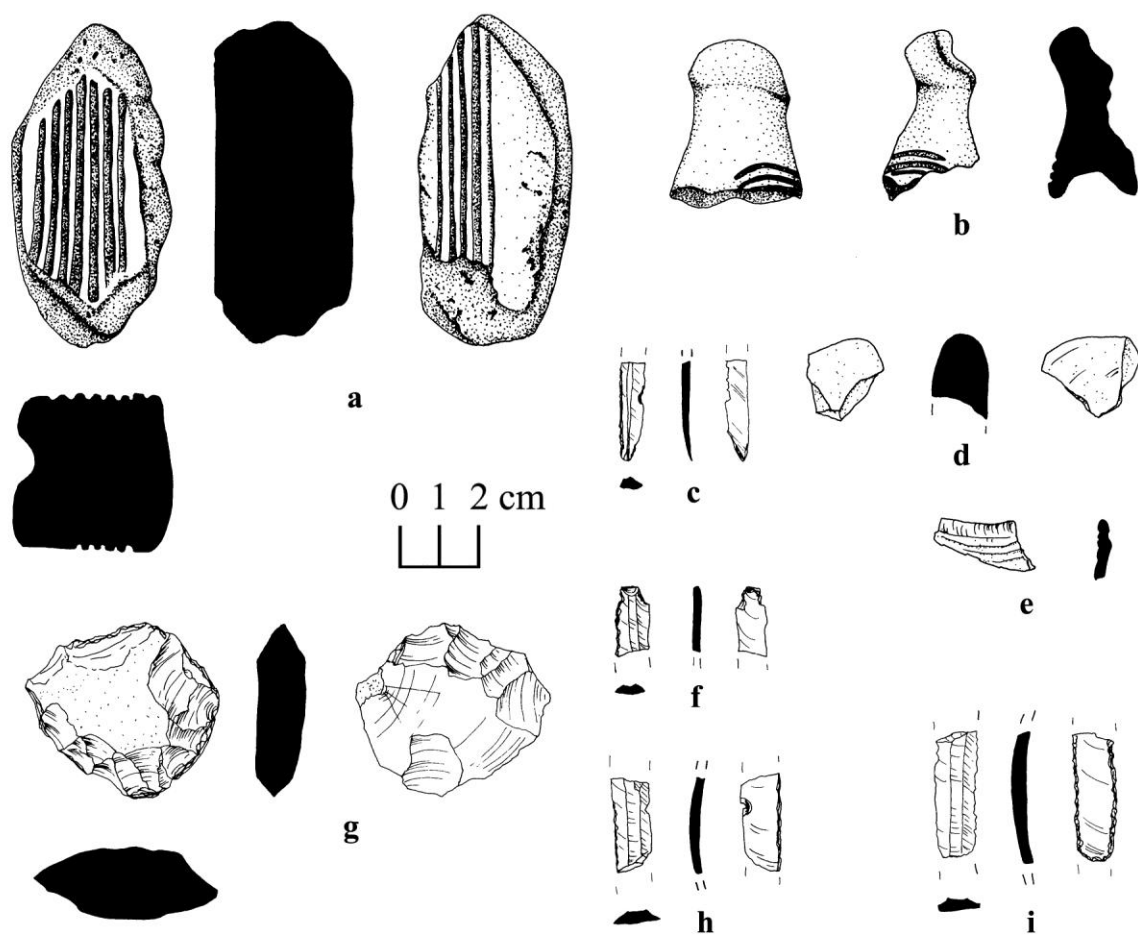


Figure 49: Artifactual materials from Operation C185C: a. limestone bark beater; b. partial ceramic figurine; c., f., h., i. partial obsidian blades; d. partial greenstone axe; e. worked marine shell; g. chert tool.

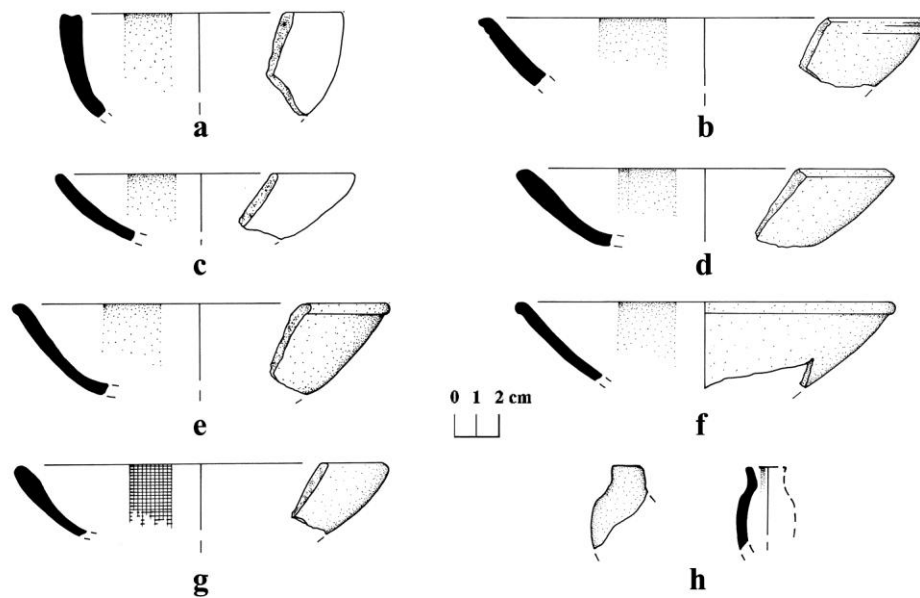


Figure 50: Sherd materials from Operation C185C: a.-g. possibly Aguacate Orange; h. unnamed type.



Figure 51: Photograph of Caracol Structure F35 and Operation C185D.

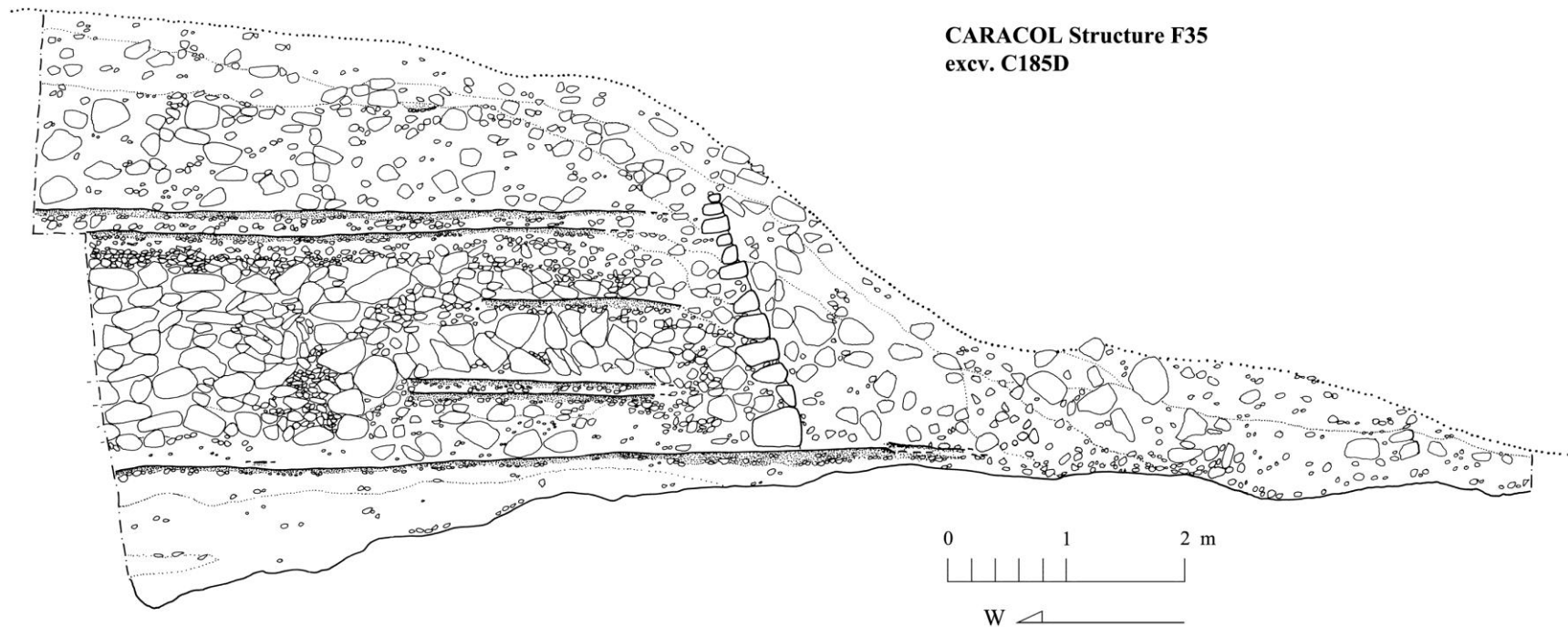


Figure 52: Section through Structure F35, designated Operation C185D.

excv. C185D

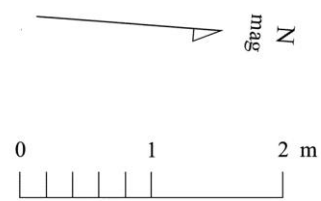
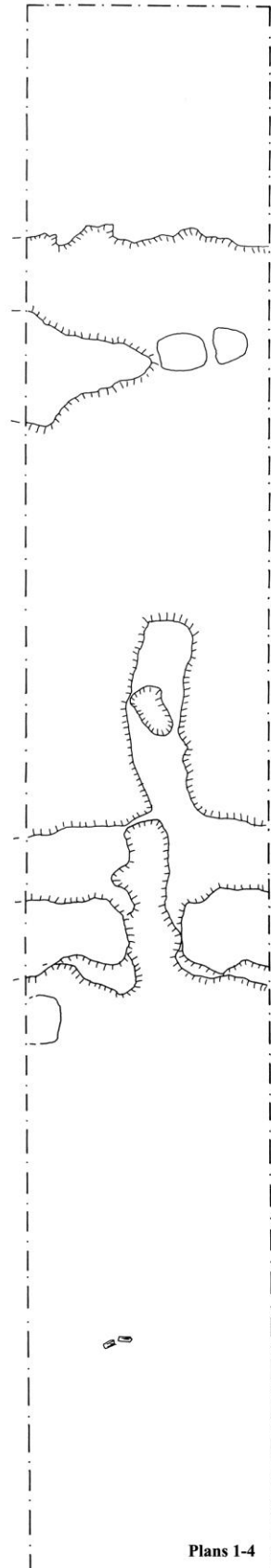


Figure 53



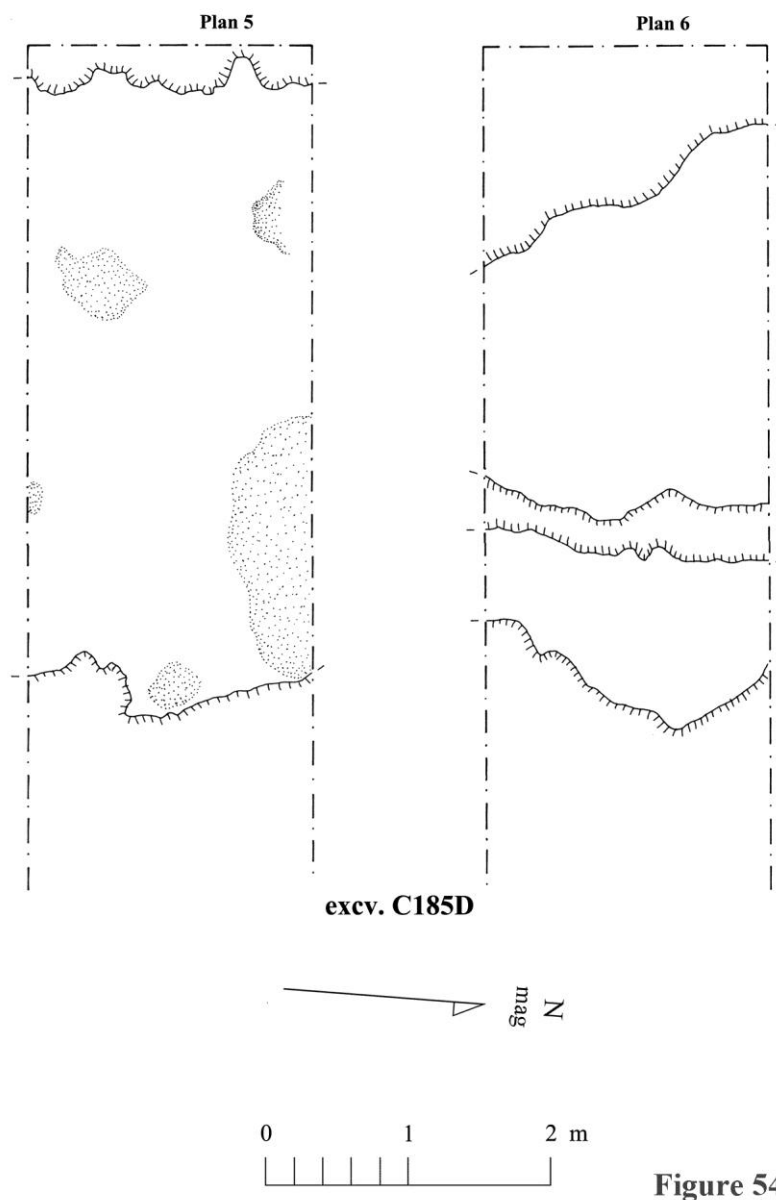


Figure 54: Plans 5 and 6 for Operation C185D.

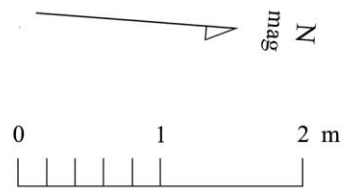
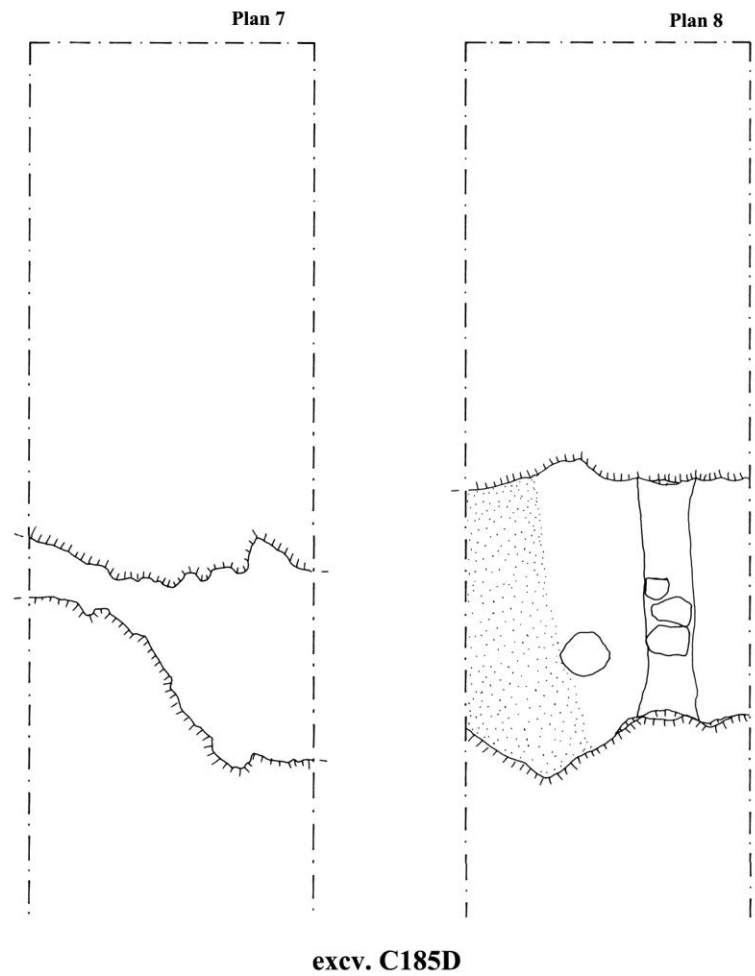
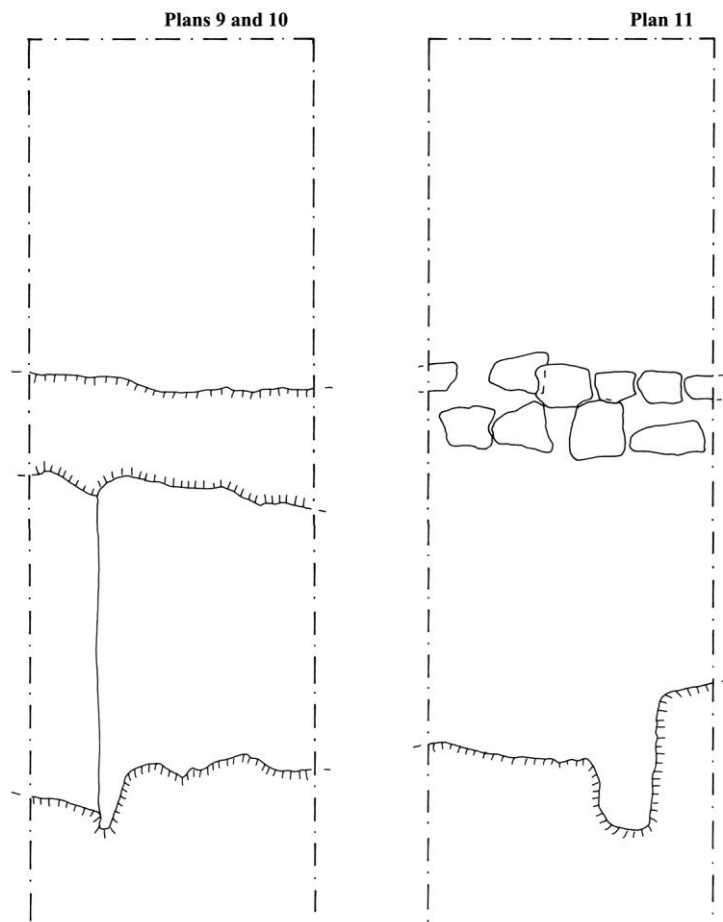


Figure 55

Figure 55: Plans 7 and 8 for Operation C185D.



excav. C185D

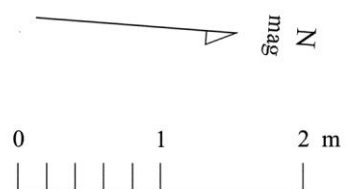


Figure 56

Figure 56: Plans 9-11 for Operation C185D.

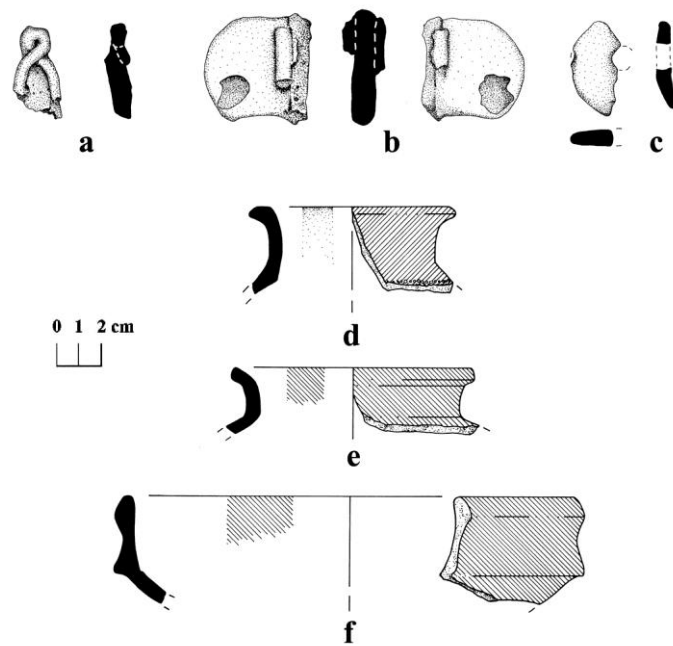


Figure 57: Ceramic materials from Operation C185D: a., b. Pedregal Modeled; c. shaped sherd; d.-f. Sierra Red.

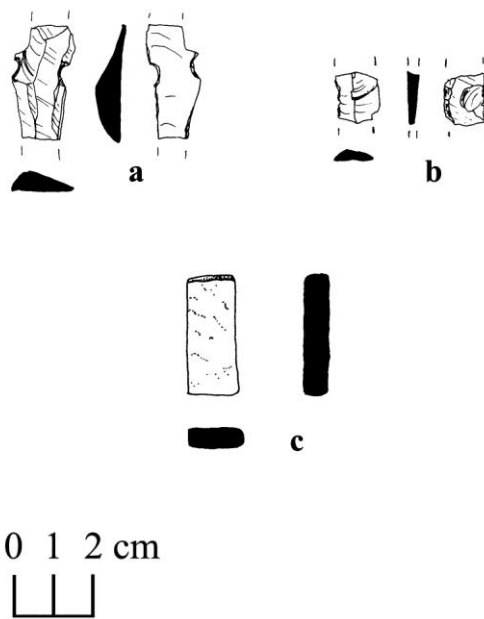


Figure 58: Artifactual materials from Operation C185D: a., b. partial obsidian blades; c. shaped limestone.

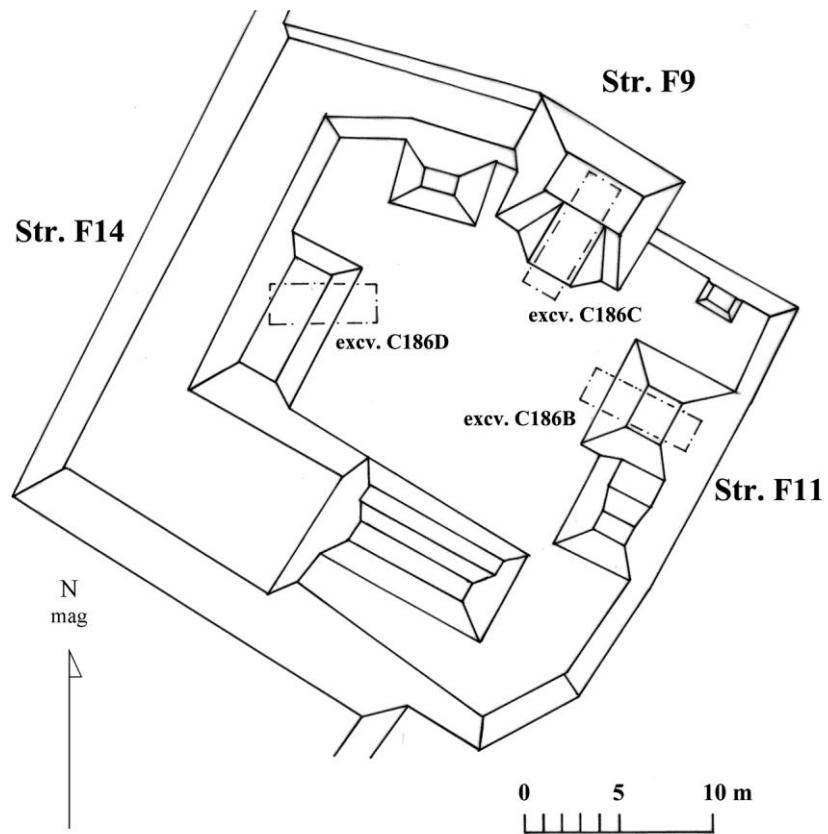


Figure 59: Plan of “Chalpat” residential group, showing location of operations.



Figure 60: Photograph of Structure F11 and Operation C186B.

CARACOL Structure F11
excv. C186B

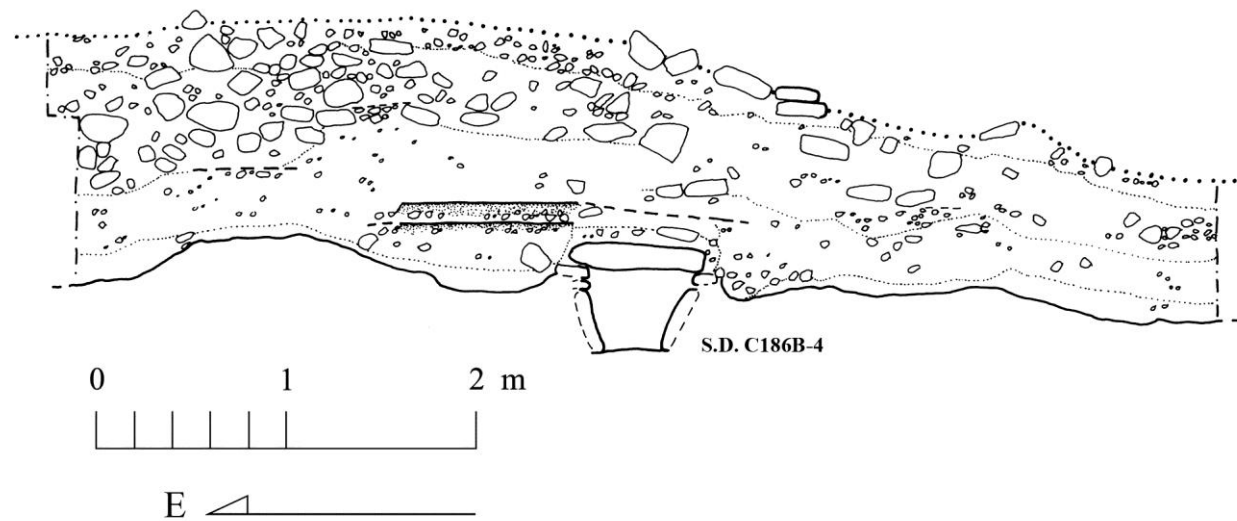


Figure 61: Section through Structure F11, designated Operation C186B.

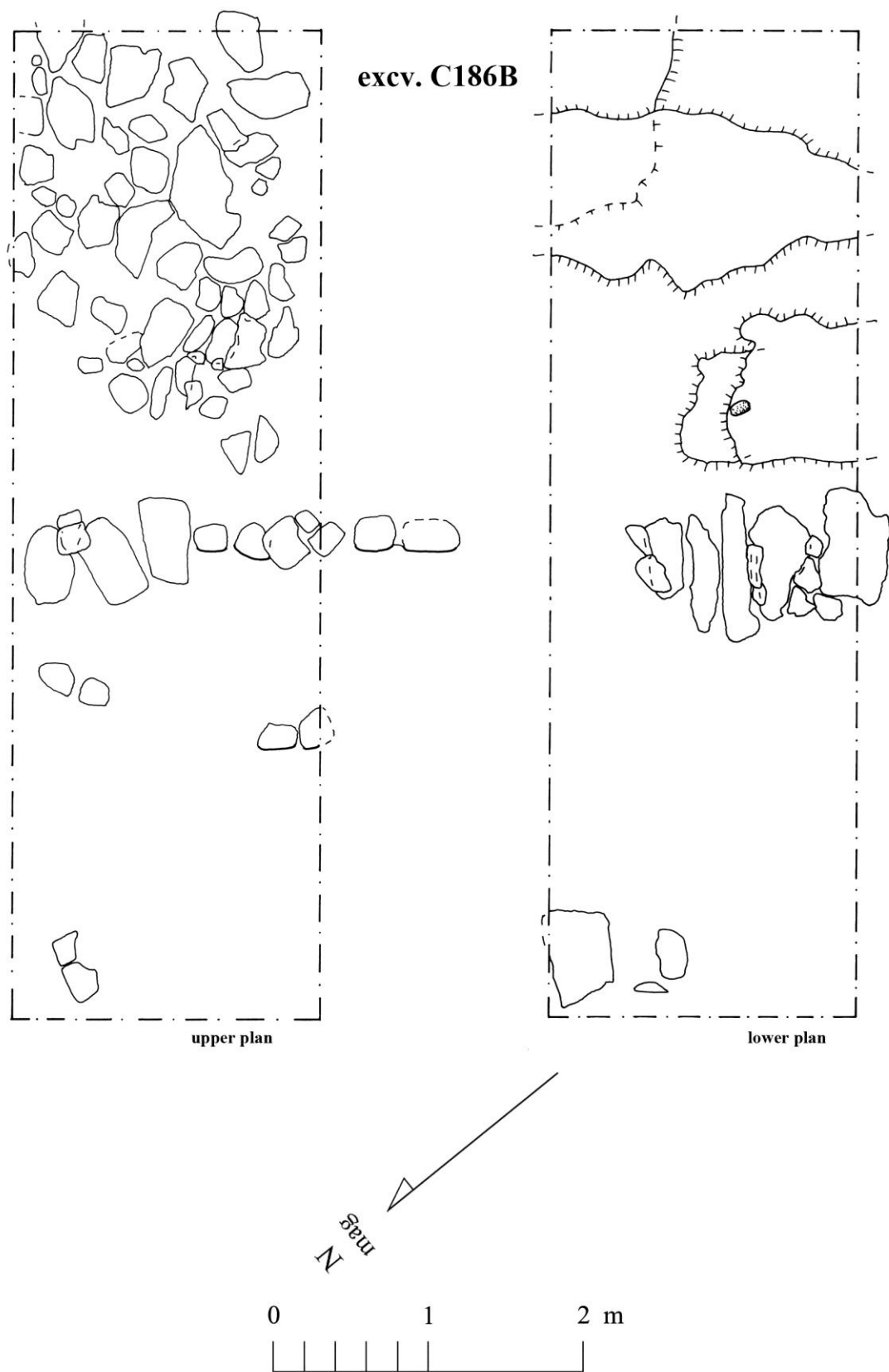


Figure 62: Upper and lower plans of Operation C186B.

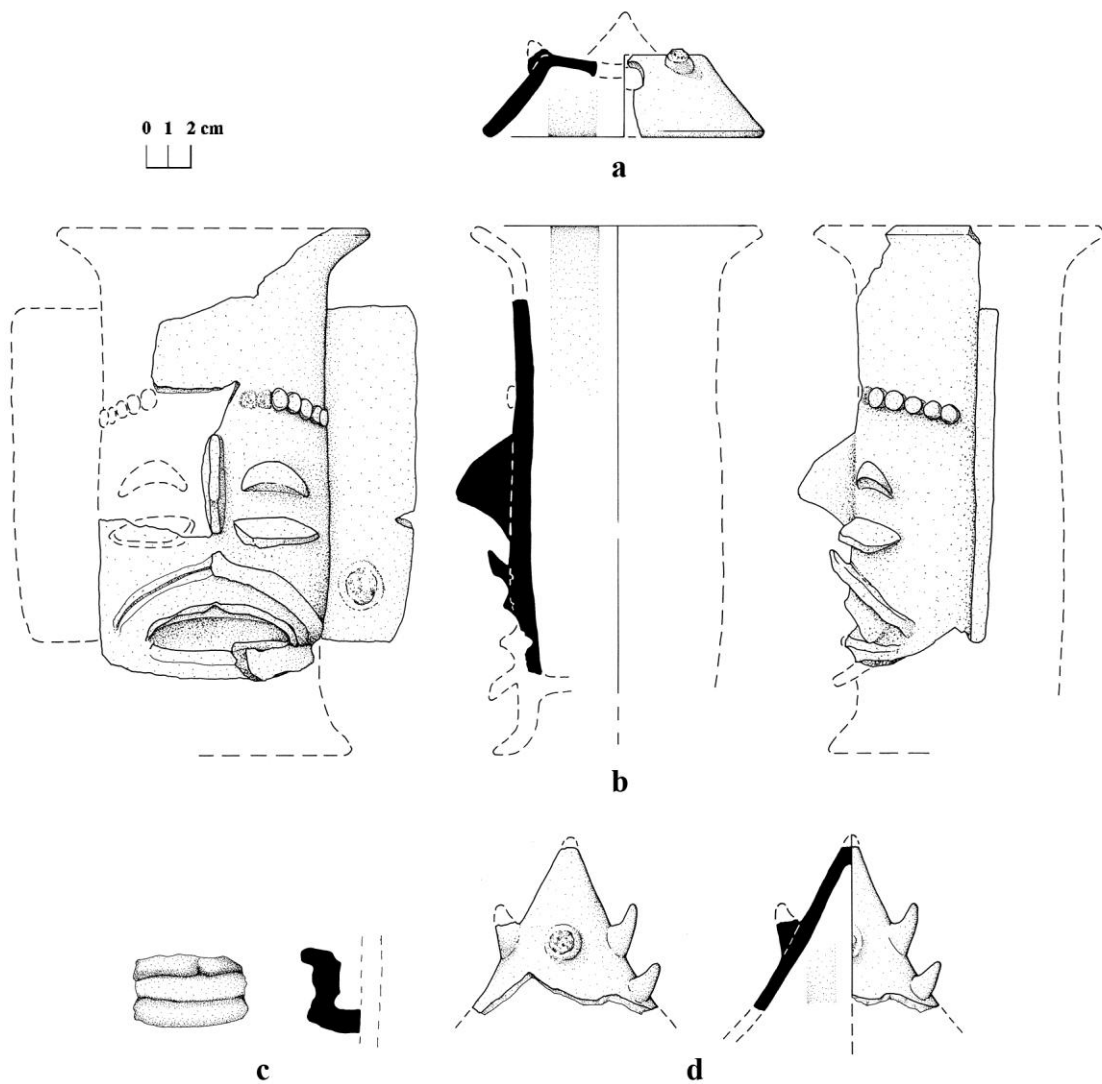


Figure 63: Censerware from Operation C186B: a.-c. Pedregal Modeled; d. Miseria Appliqued.

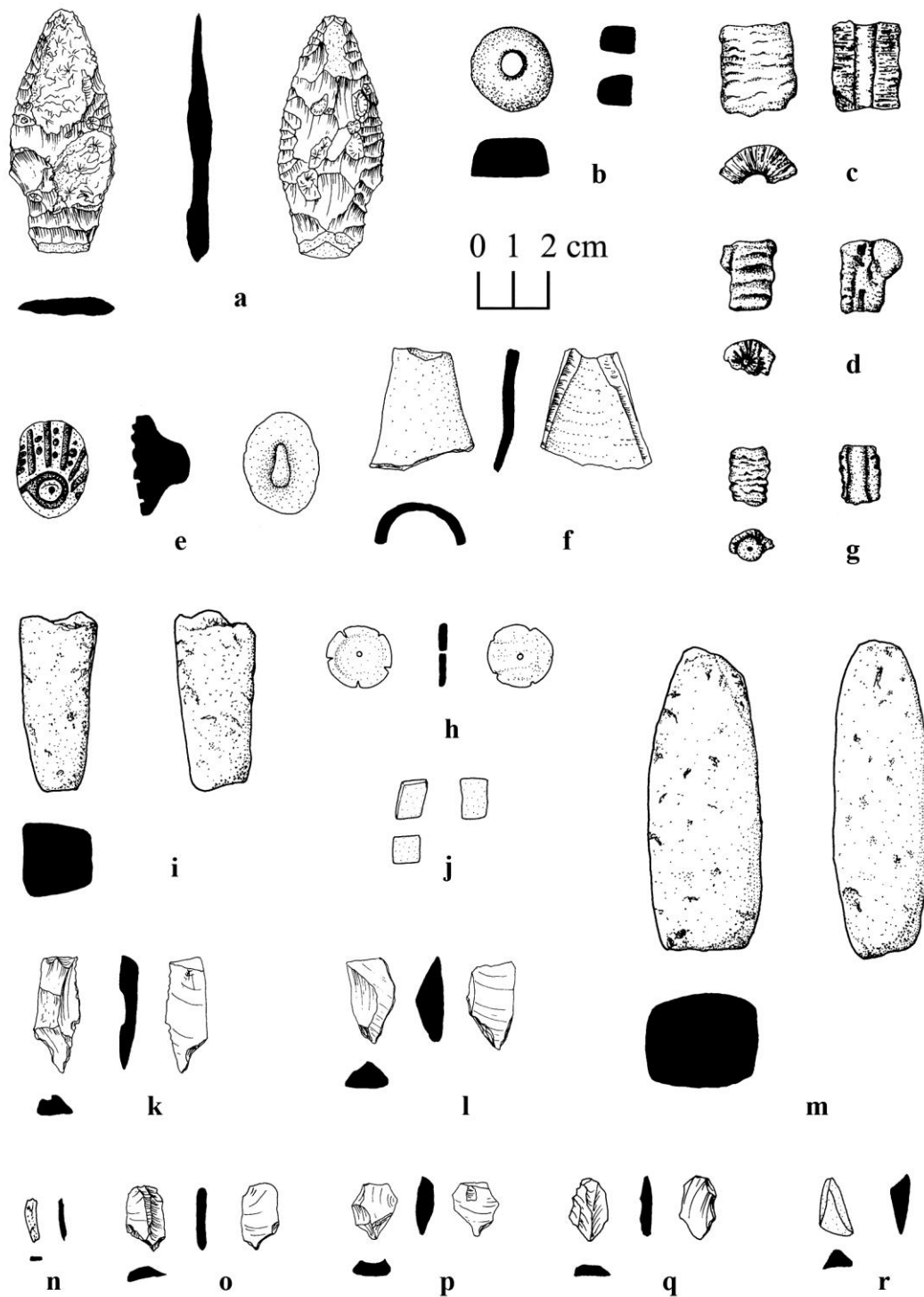


Figure 64: Artifactual materials associated with Operation C186B: a. chert point; b. limestone spindle whorl; c., d., g. speleothems; e. pottery stamp; f. cut conch shell; i., m. limestone bars; h. carved shell flower; j. hematite; k., l., o.-q. chert; n. obsidian; r. jadeite chip.

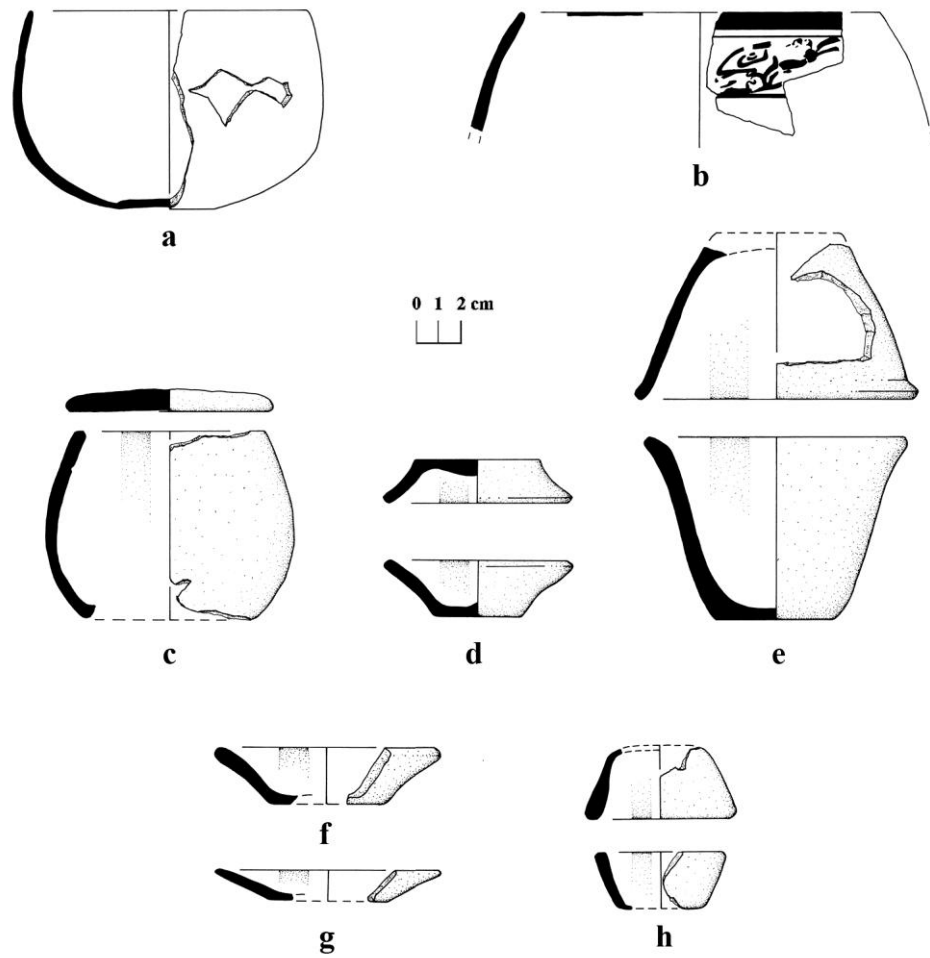


Figure 65: Reconstructible ceramics associated with Operation C186B: a. probably Molino Black (from S.D. C186B-3); b. Saxche Orange-Polychrome; c.-h. Ceiba Unslipped (c.-e. from S.D. C186B-1; h. from S.D. C186B-2).

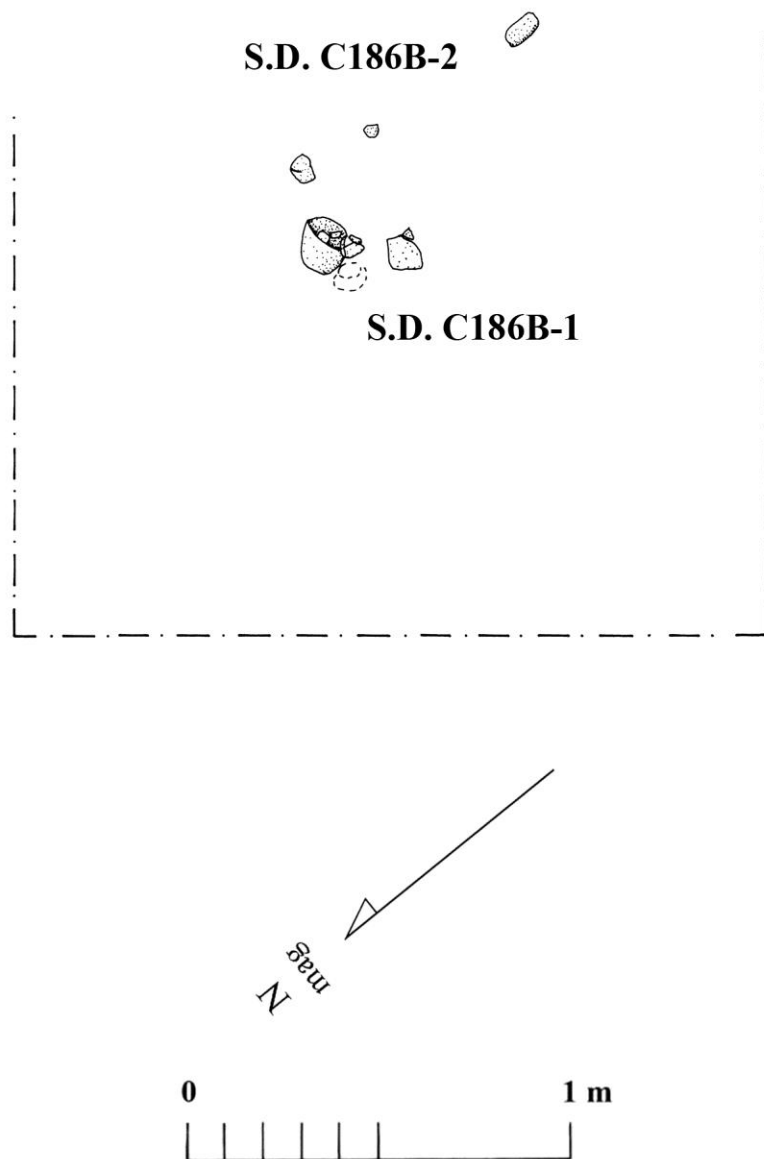


Figure 66: Plans of S.D. C186B-1 and S.D. C186B-2.

S.D. C186B-3

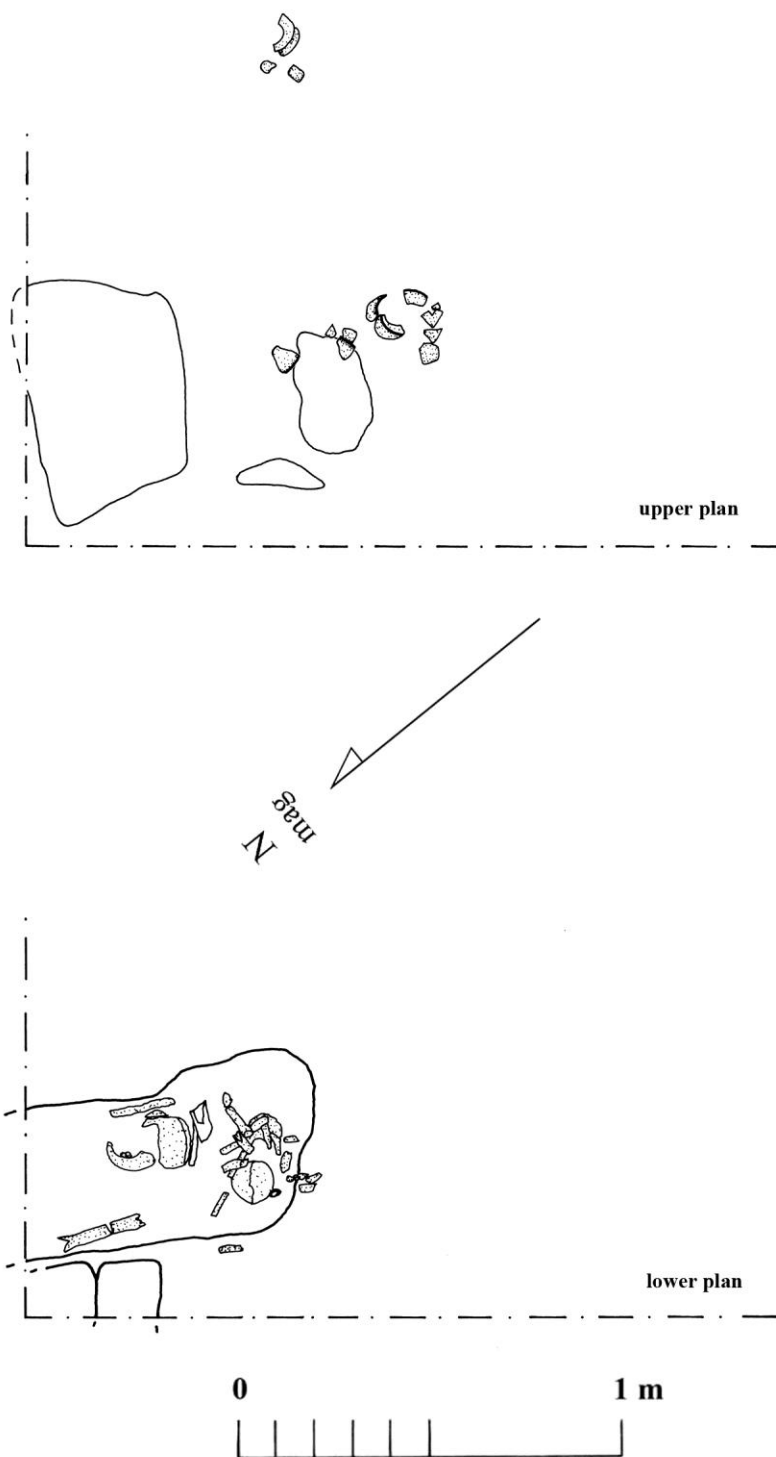


Figure 67: Upper and lower plans for S.D. C186B-3.



Figure 68: Photograph of S.D. C186B-4.

S.D. C186B-4

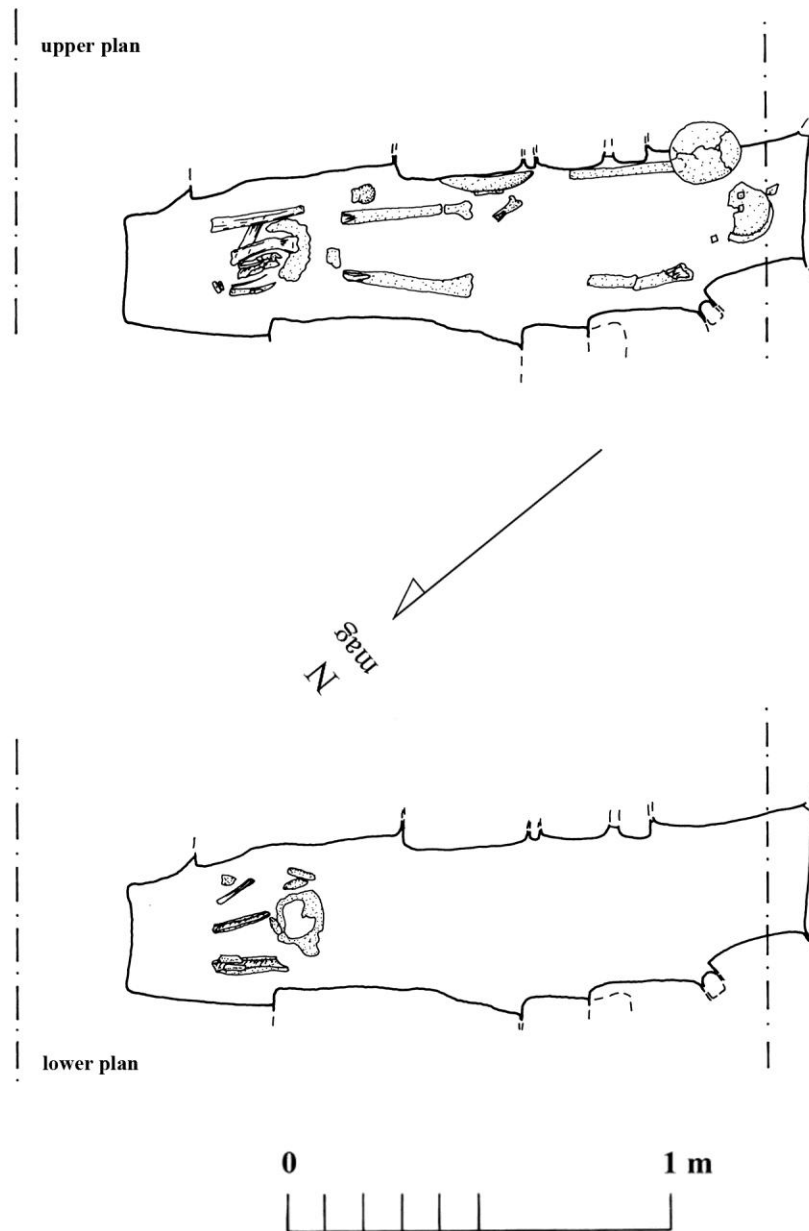


Figure 69: Plans of S.D. C186B-4.

S.D. C186B-4

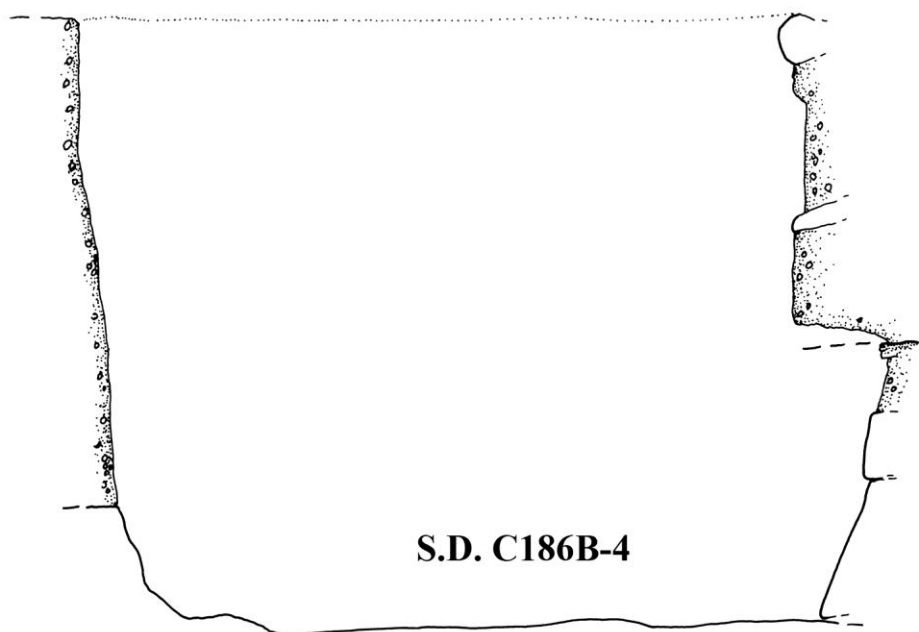
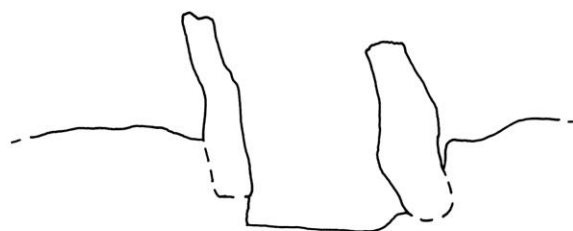


Figure 70: Cross-sections of S.D. C186B-4.

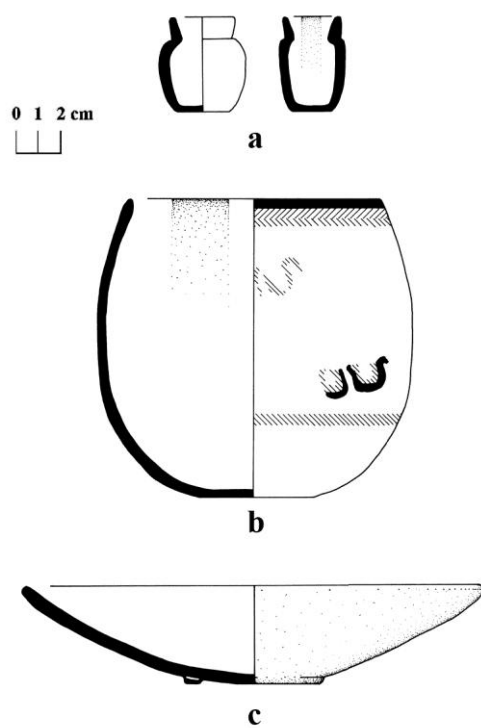


Figure 71: Ceramic vessels associated with S.D. C186B-4: a. unnamed type; b. Saxche Orange Polychrome; c. Machete Orange-Polychrome.

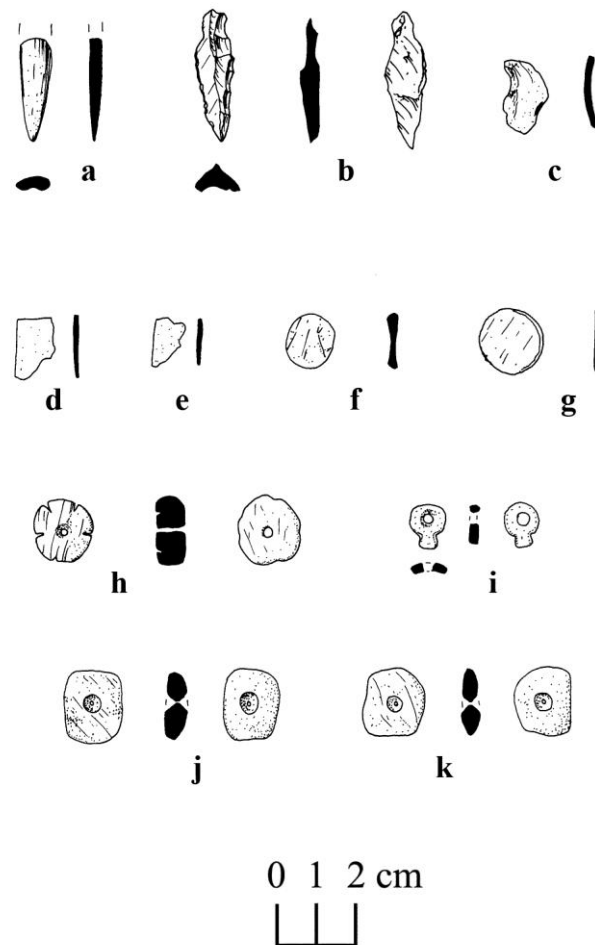


Figure 72: Artifactual materials associated with S.D. C186B-4: a. bone awl fragment; b. chert drill; c. marine shell fragment; d., e. shell inlay fragments; f., g. cut shell discs; h., i. shell beads; j., k. jadeite earflares.



Figure 73: Photograph of Structure F9 and Operation C186C.

CARACOL Structure F9
excv. C186C

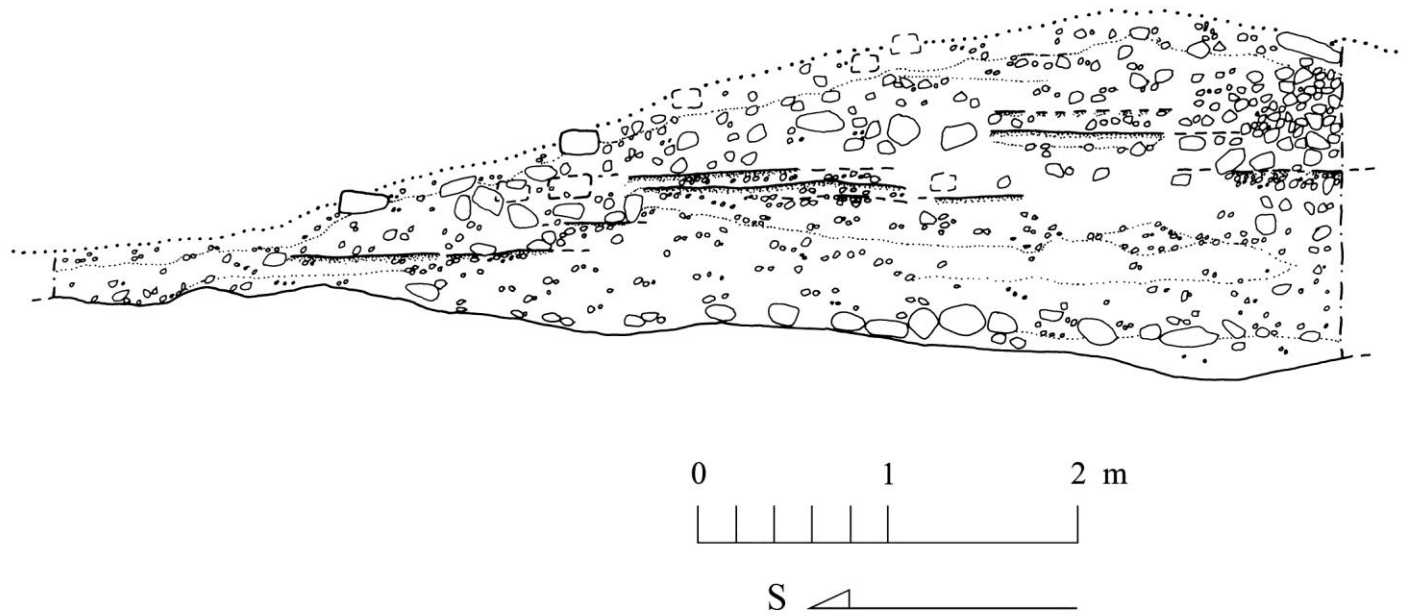


Figure 74: Section through Structure F9, designated as Operation C186C.

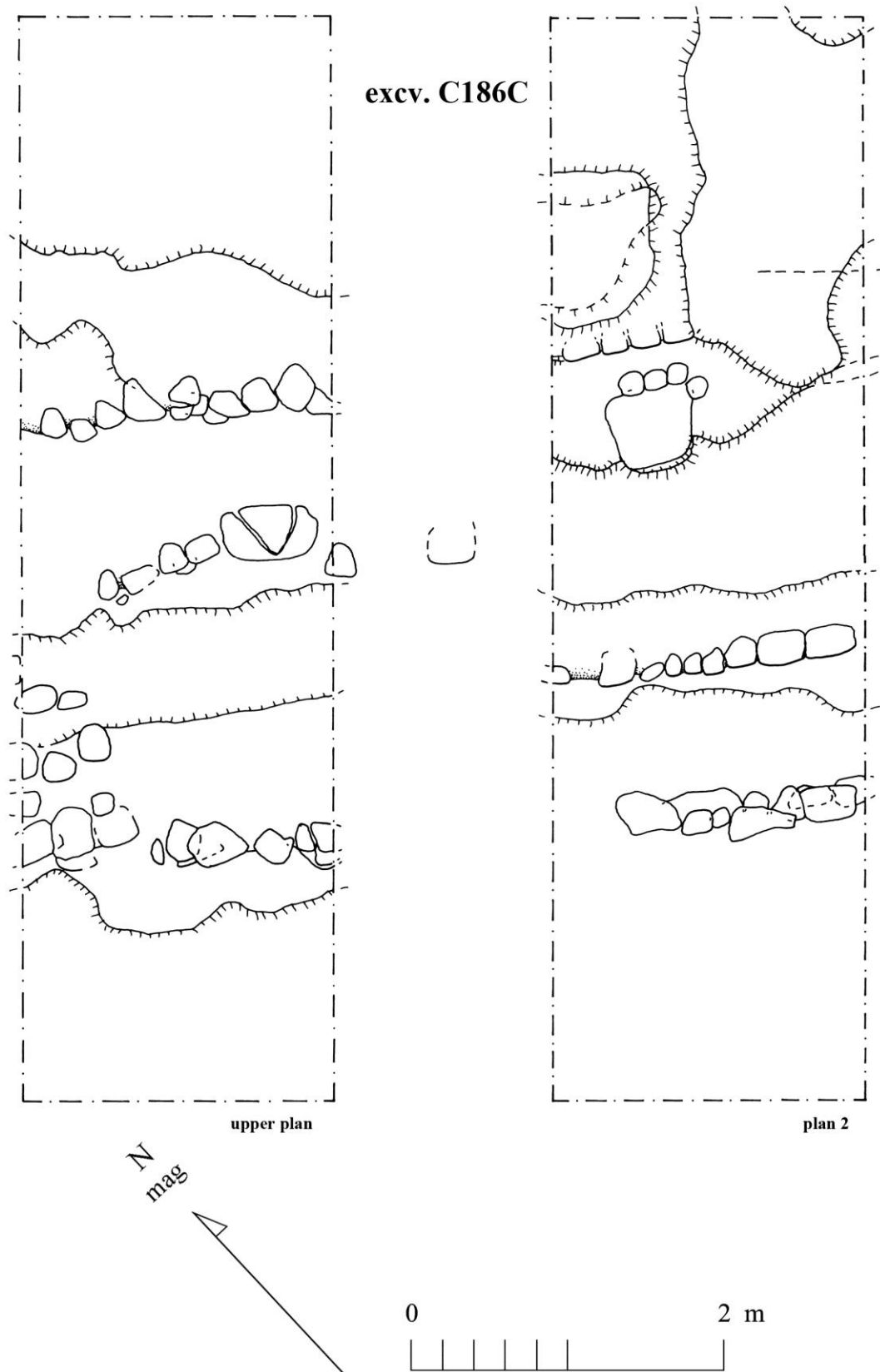


Figure 75: Upper plans associated with Operation C186C.

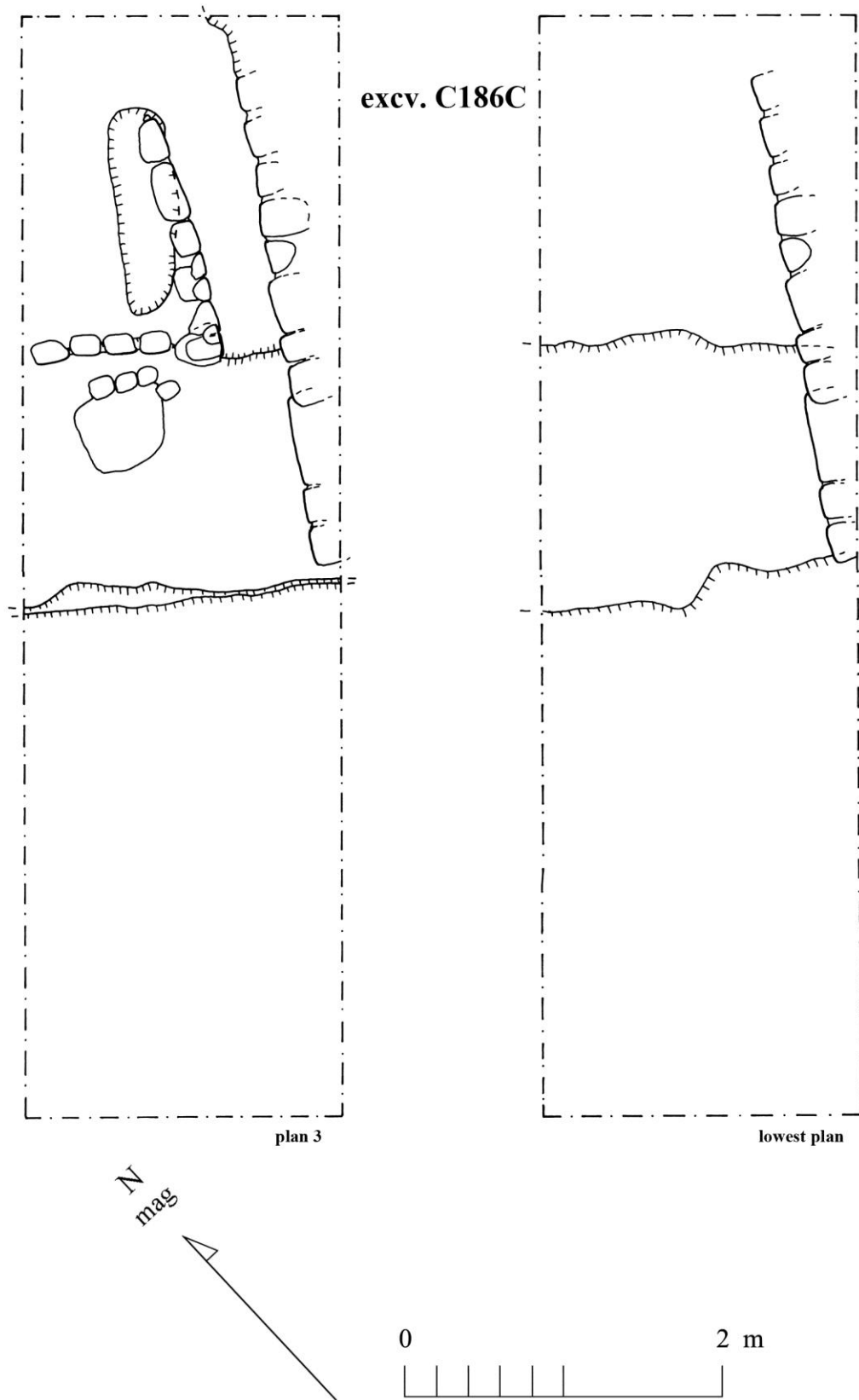


Figure 76: Lower plans associated with Operation C186C.

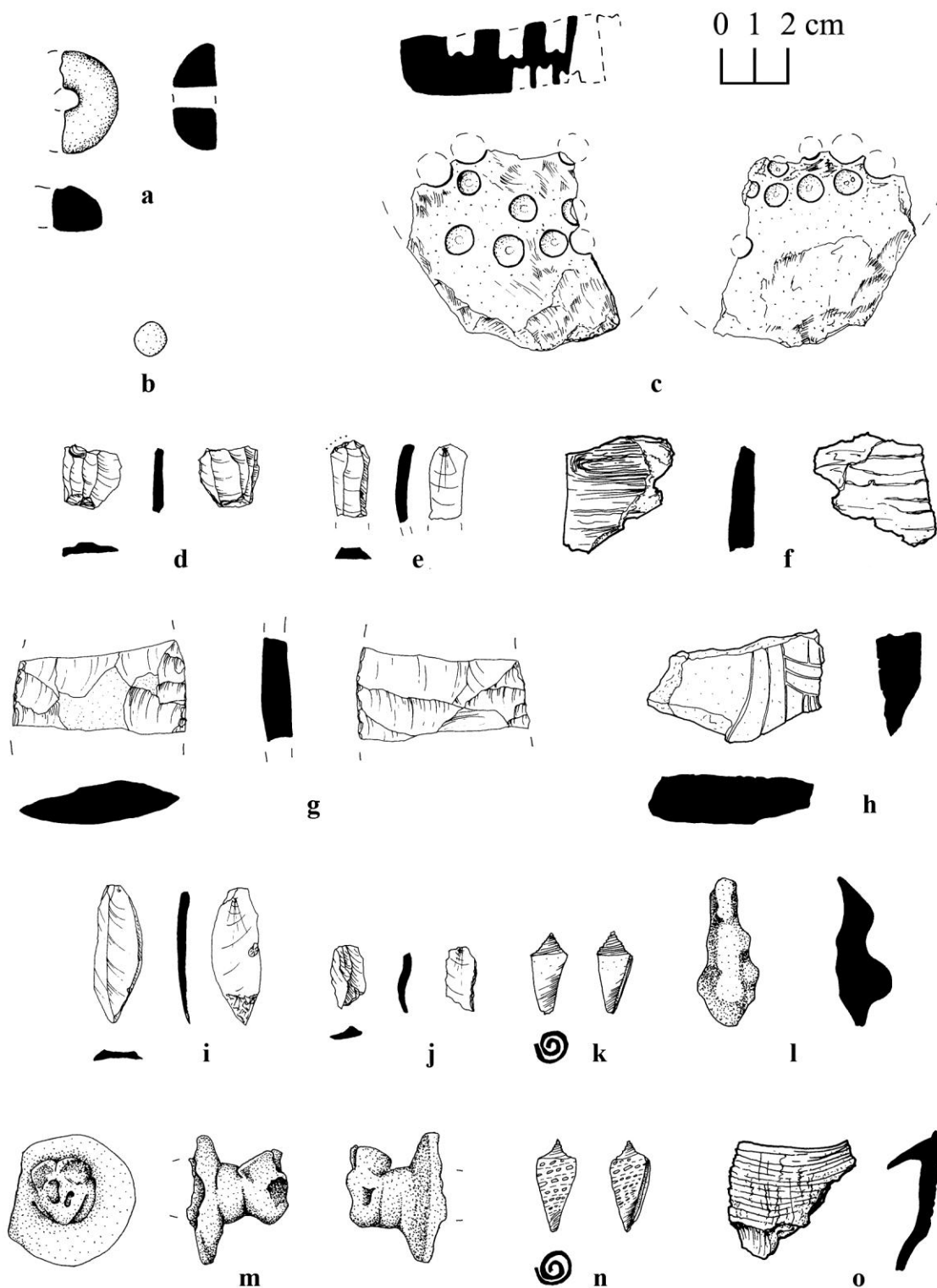


Figure 77: Artifactual materials associated with Operation C186C: a. partial limestone spindle whorl; b. quartzite ball; c. marbled limestone employed in drilling beads; d., e., j. partial obsidian blades; f. burnt conch shell; g. broken chert biface; h. carved slate fragment; i. chert blade; k, n. complete marine shell; l. figurine fragment; m. ceramic "stopper;" o. marine shell fragment.

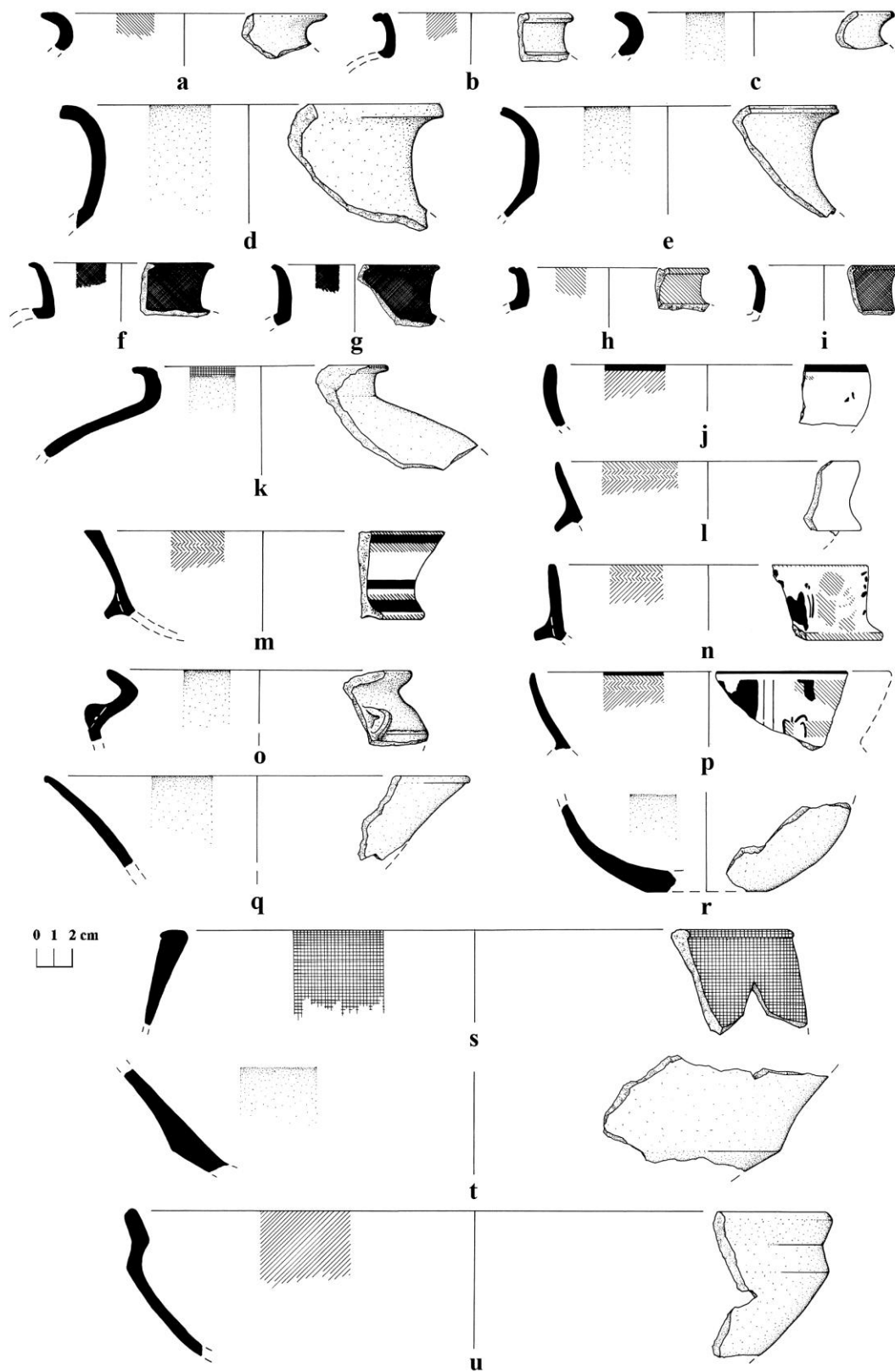


Figure 78: Sherd materials associated with the lowest levels in Operation C186C: a., h. Dos Hermanos Red; b., u. Aguila Orange; c., d., e., q., r., t. Quintal Unslipped; f., g., i. Balanza Black; k., s. Pucte Brown; j., l., m., n., p. Dos Arroyos Orange Polychrome; o. Candelario Applied.



Figure 79: Photograph of Structure F14 and Operation C186D.

CARACOL Structure F14
excv. C186D

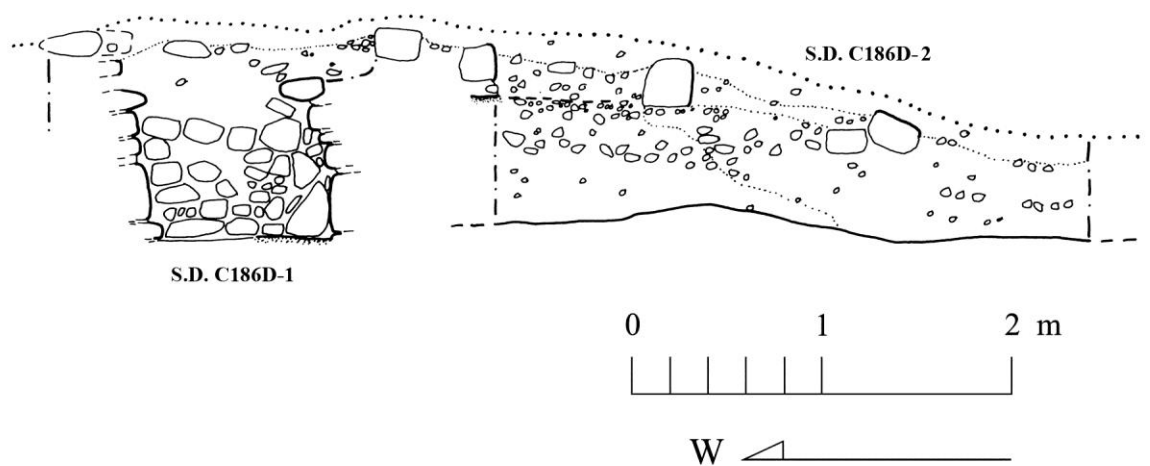


Figure 80: Section through Structure F14 and Operation C186D.

excv. C186D

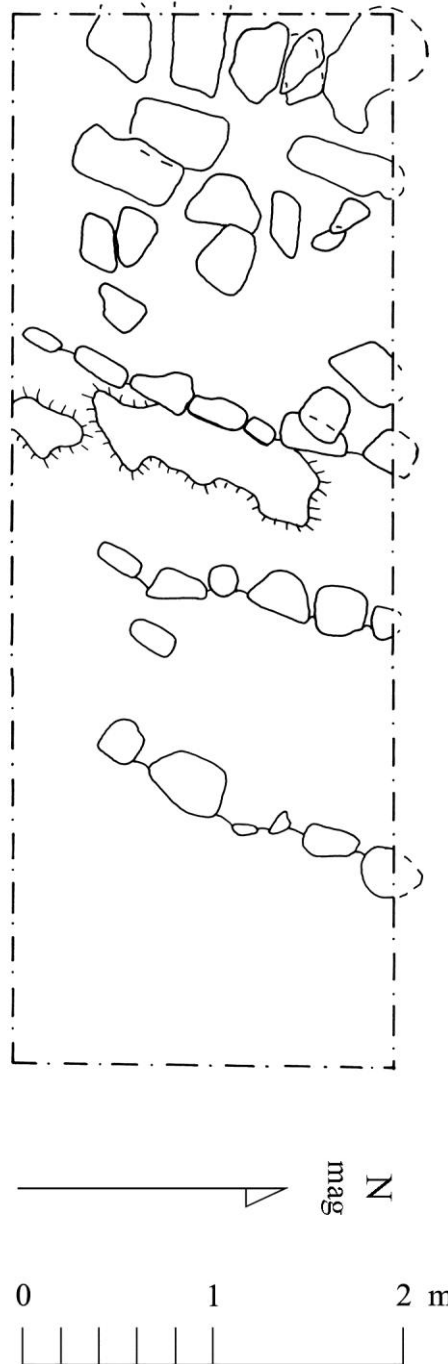


Figure 81: Plan of Operation C186D.

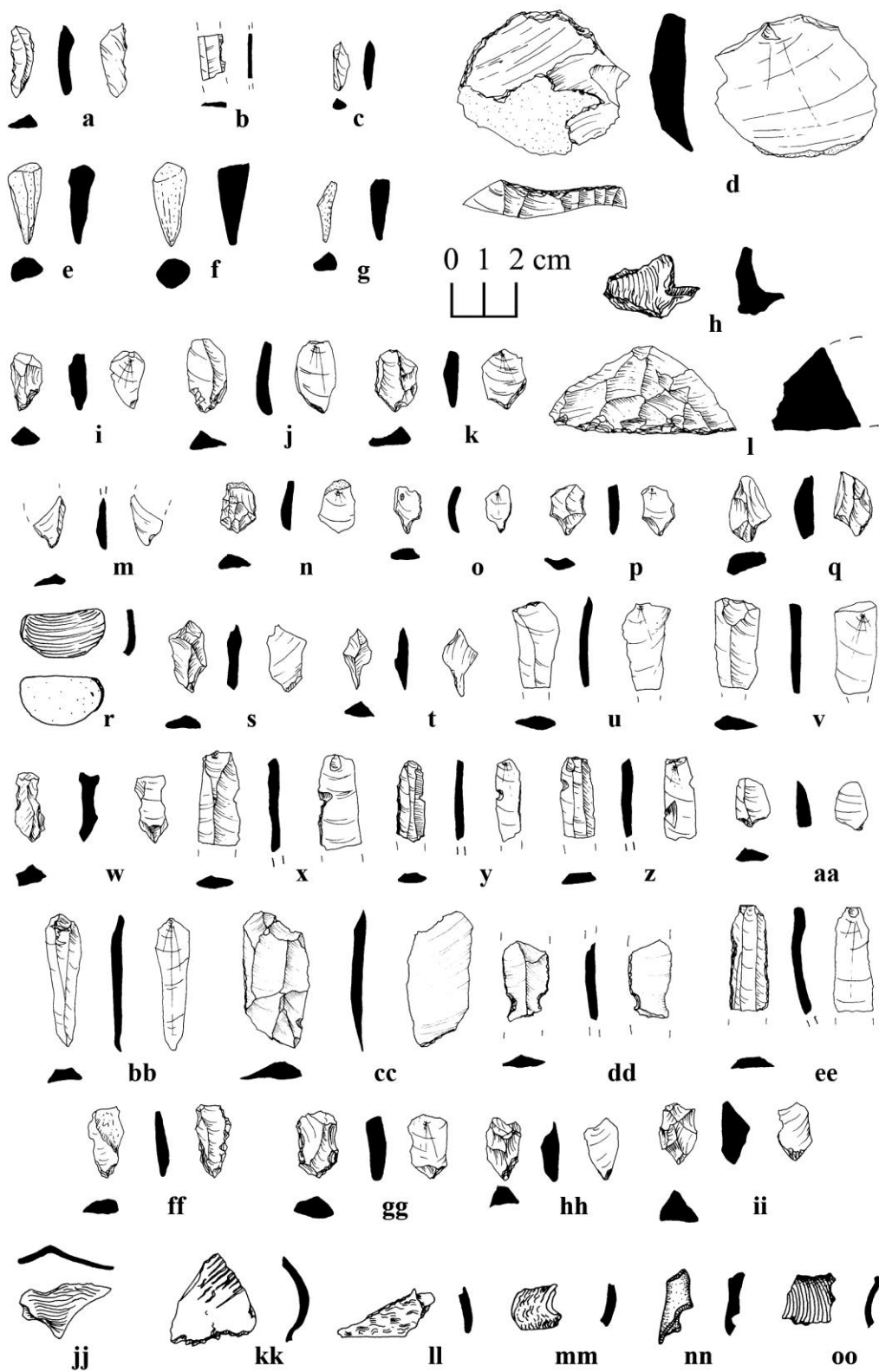


Figure 82: Artifactual material associated with Operation C186D: a., d, j.-q., s.-w., aa., bb., ff.-ii. chert tools; b., x.-z., cc.-ee. obsidian; c. shale; e.-g., i. quartzite; h., r., jj.-oo. worked shell.



Figure 83: Photograph of S.D. C186D-1.

S.D. C186D-1

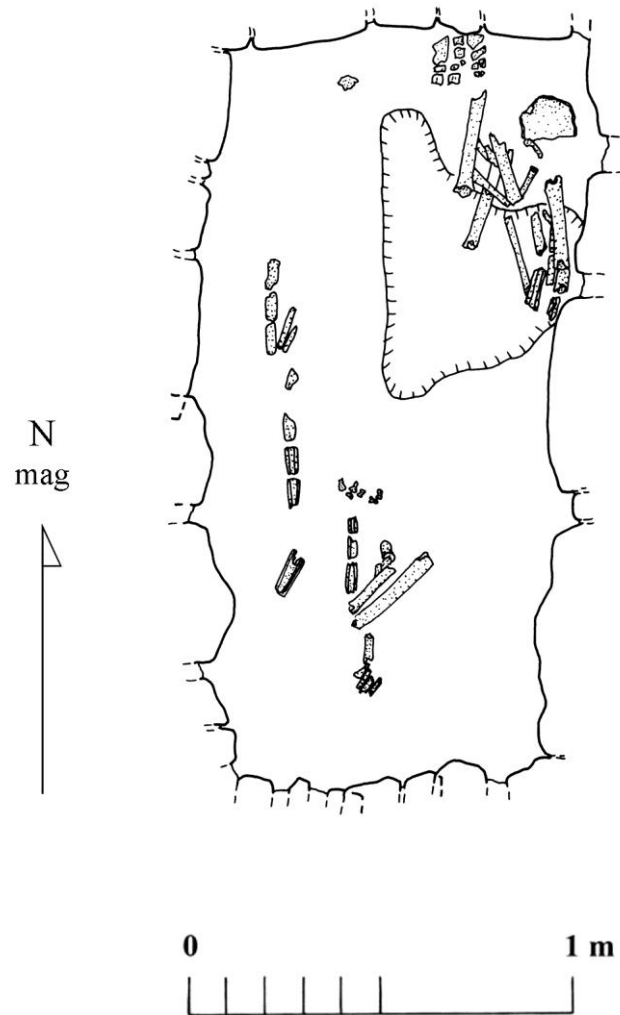
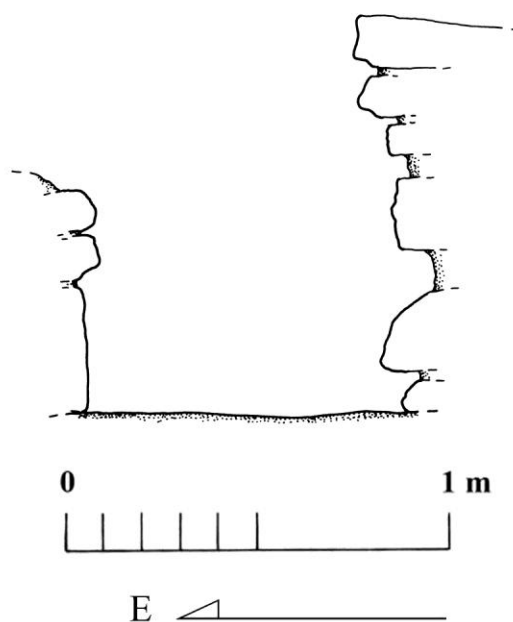


Figure 84: Plan of S.D. C186D-1.

S.D. C186D-1



S.D. C186D-1

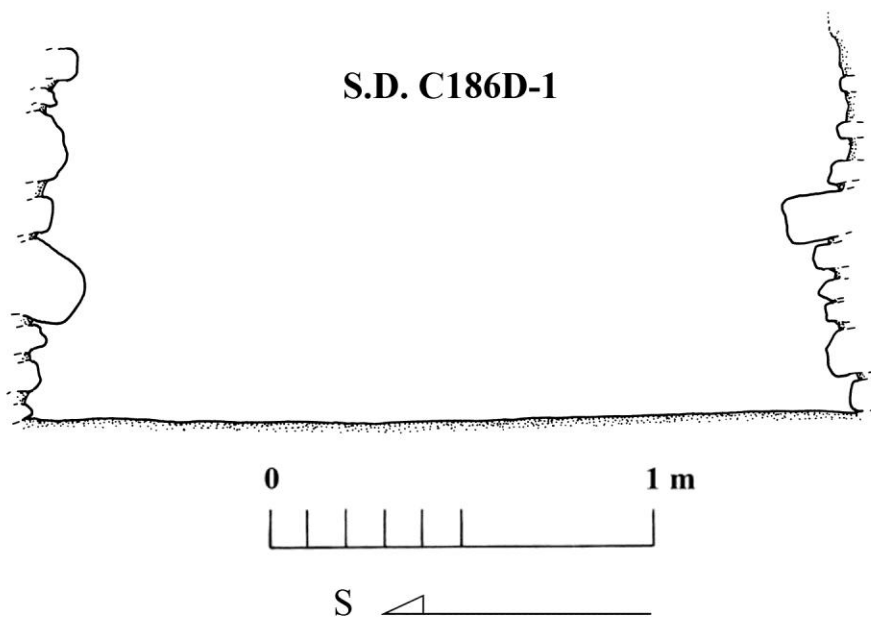


Figure 85: Cross-sections of the S.D. C186D-1 chamber.

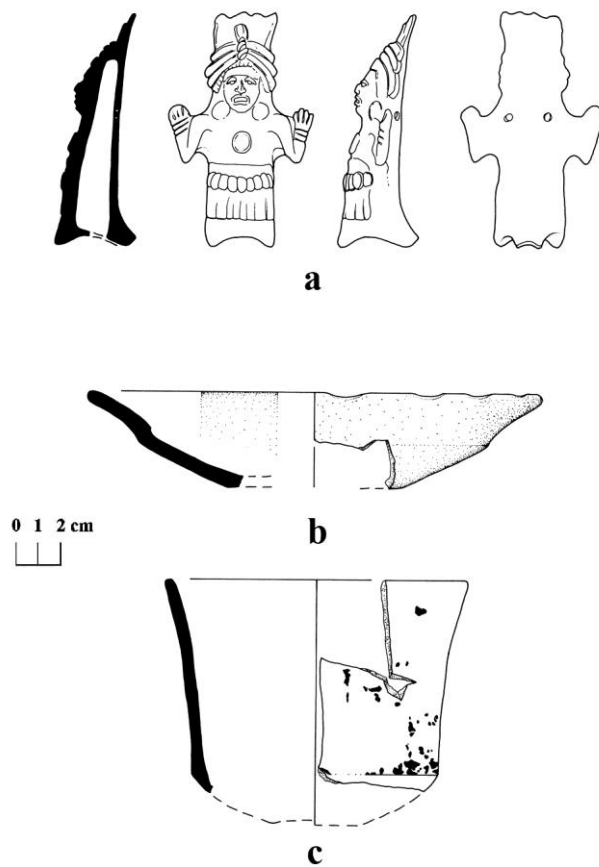


Figure 86: Ceramics associated with Structure F14 and S.D. C186D-1: a. figurine/whistle in humus above chamber; b. probably Tenaja Fluted (from floor of chamber); c. Zacatel Polychrome (from basal front fill).

S.D. C186D-2

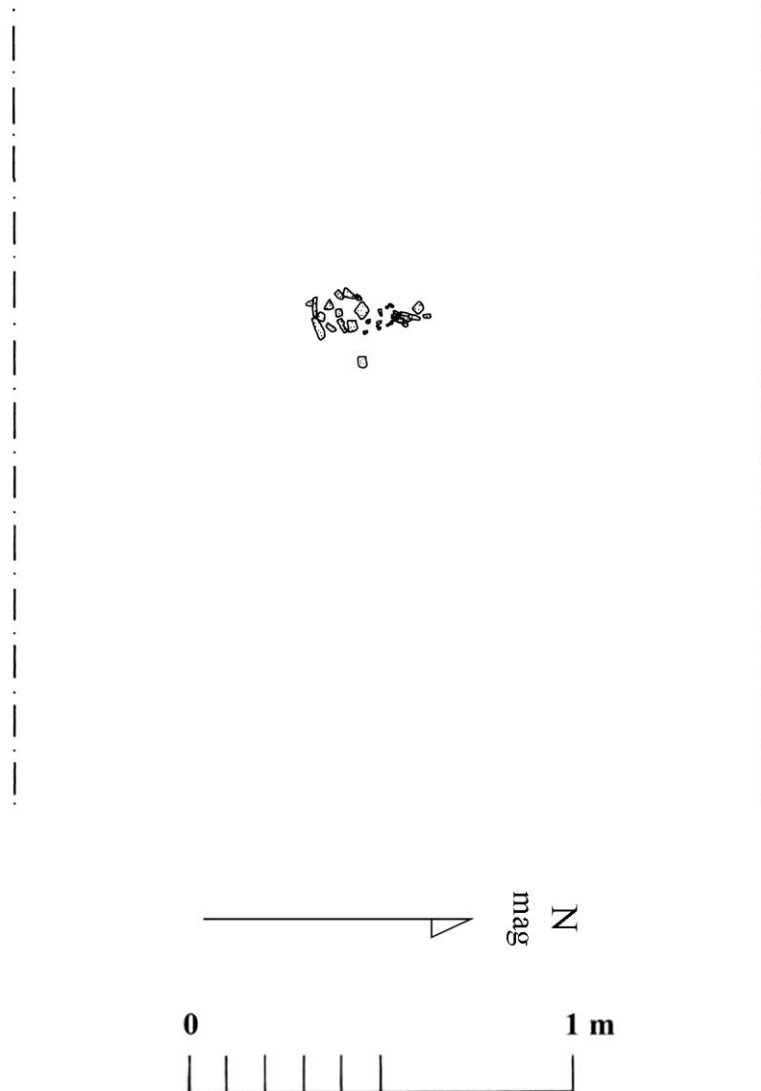


Figure 87: Plan of S.D. C186D-2.

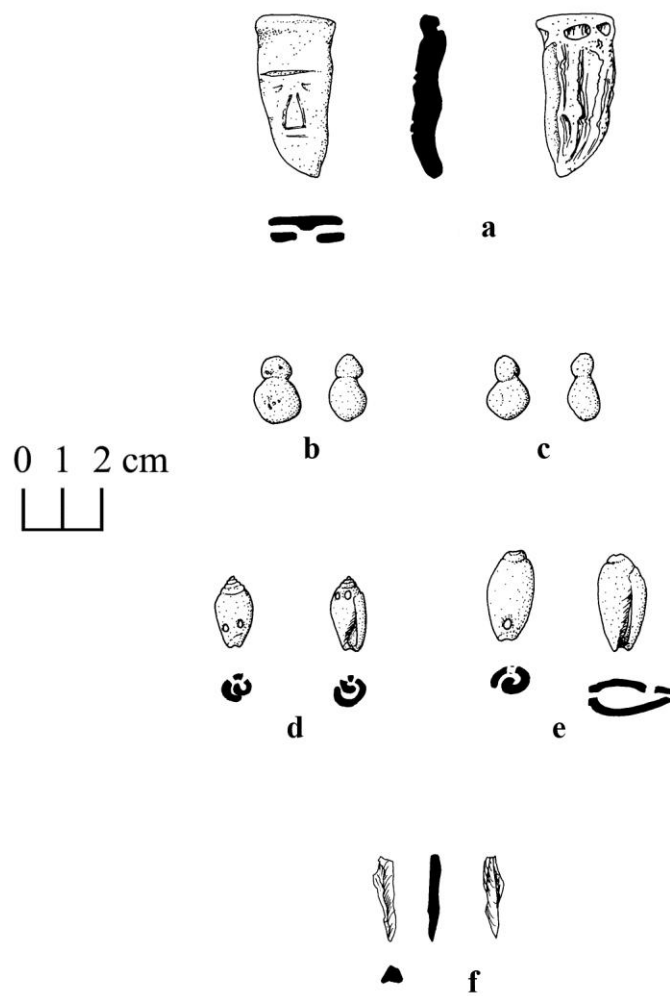


Figure 88: Artifactual material associated with S.D. C186D-2: a. carved shell pendent; b., c. limestone bangles; d., e. drilled olive shells; f. chert drill.

CARACOL Structure F13

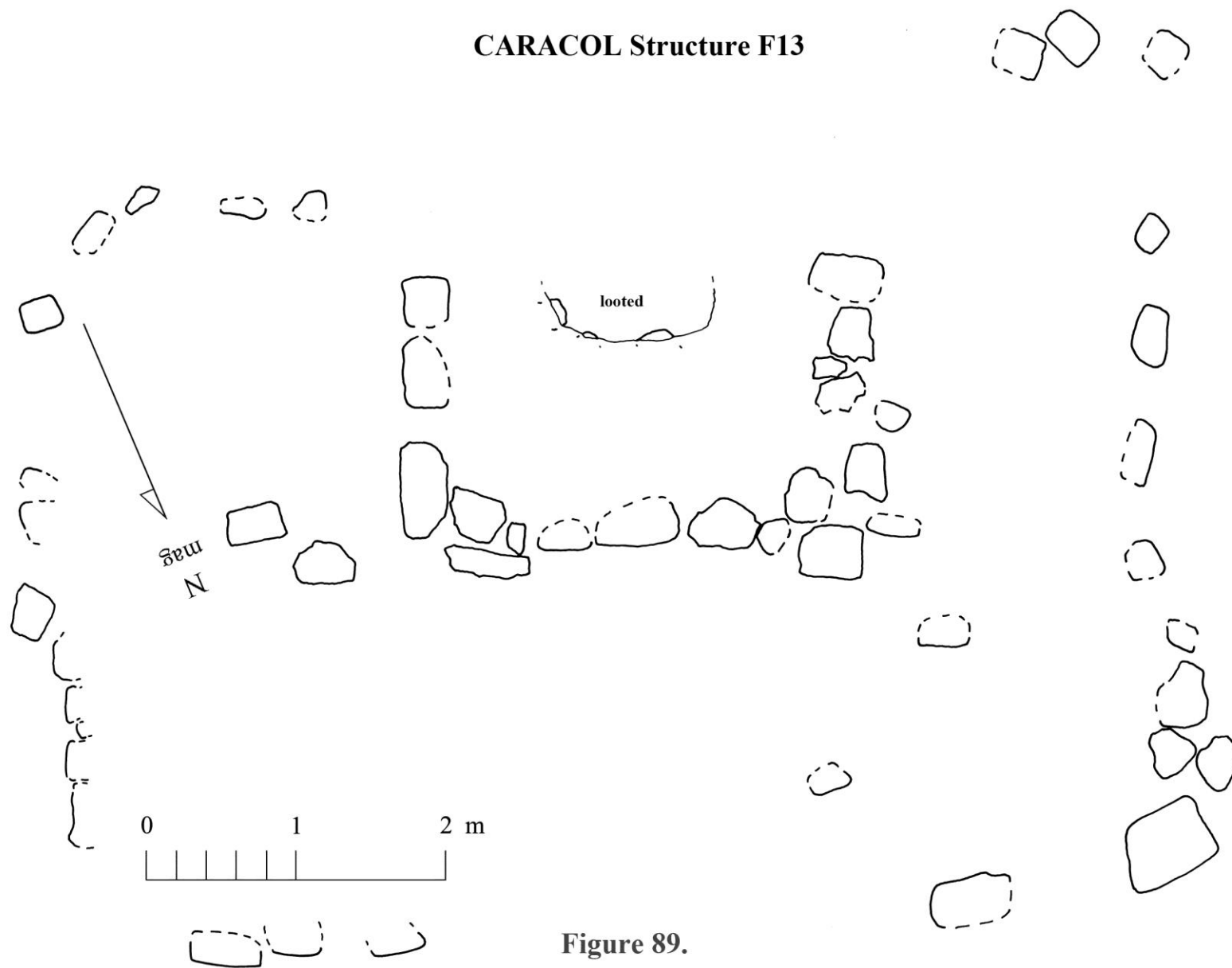


Figure 89.



Figure 90: Photograph of Structure A1 and Operation C187B.

CARACOL Structure A1
excv. C187B

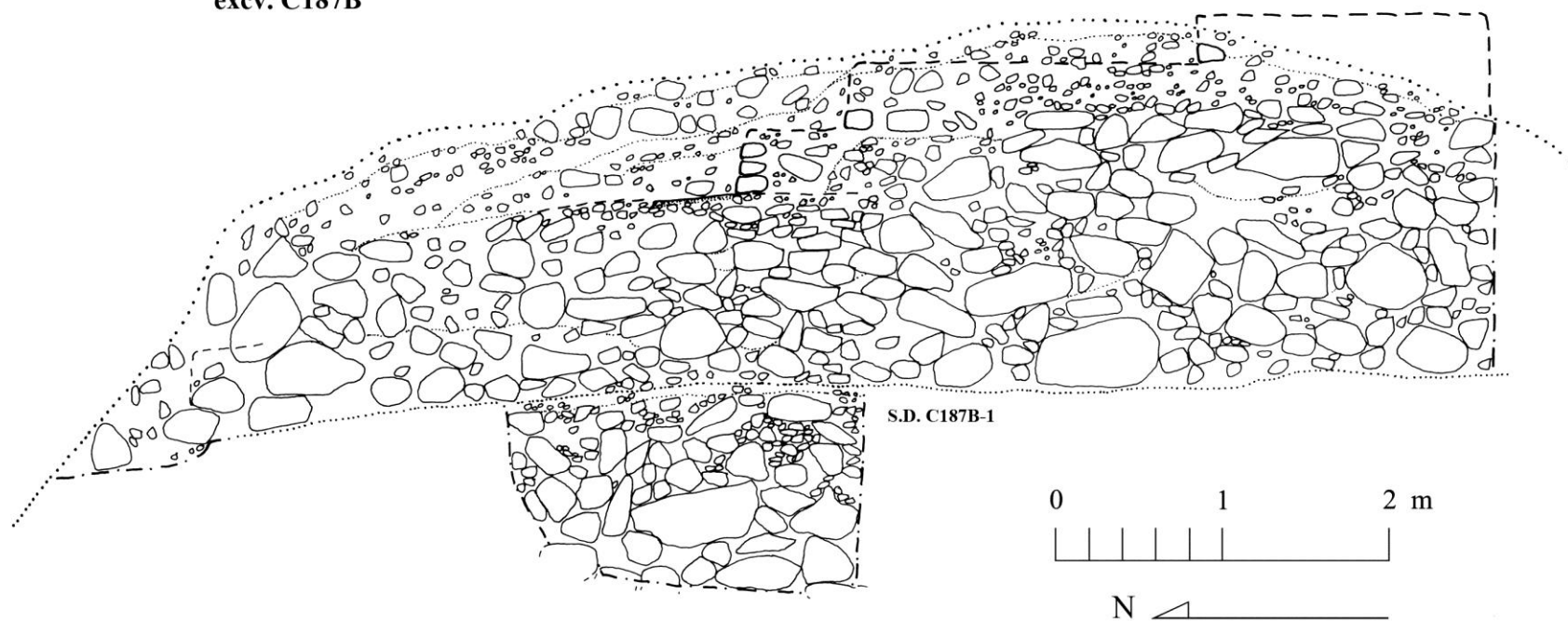


Figure 91: Section through Structure A1, designated Operation C187B.

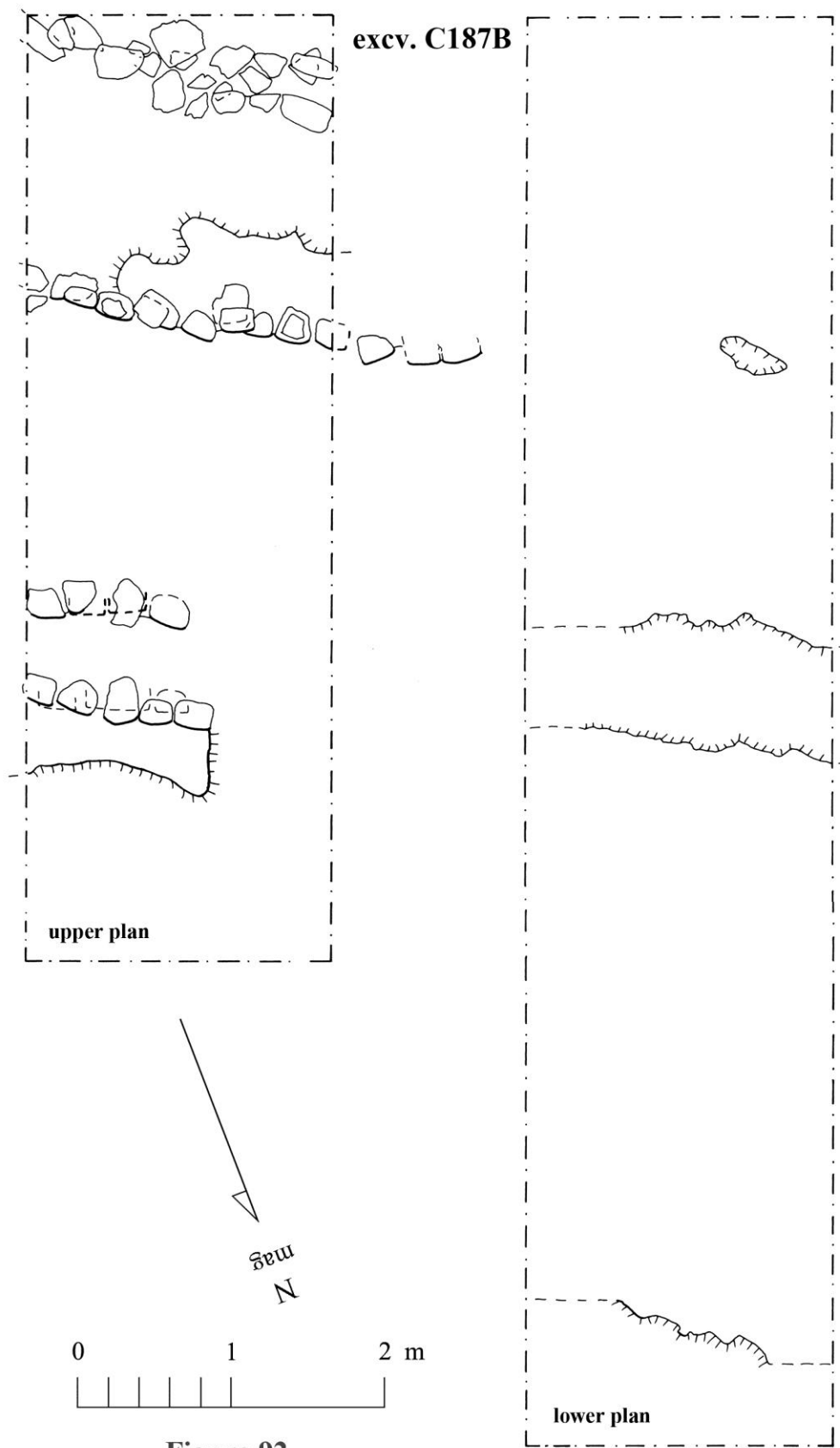




Figure 93: Photograph of summit excavation, showing general location of S.D. C187B-1.

S.D. C187B-1

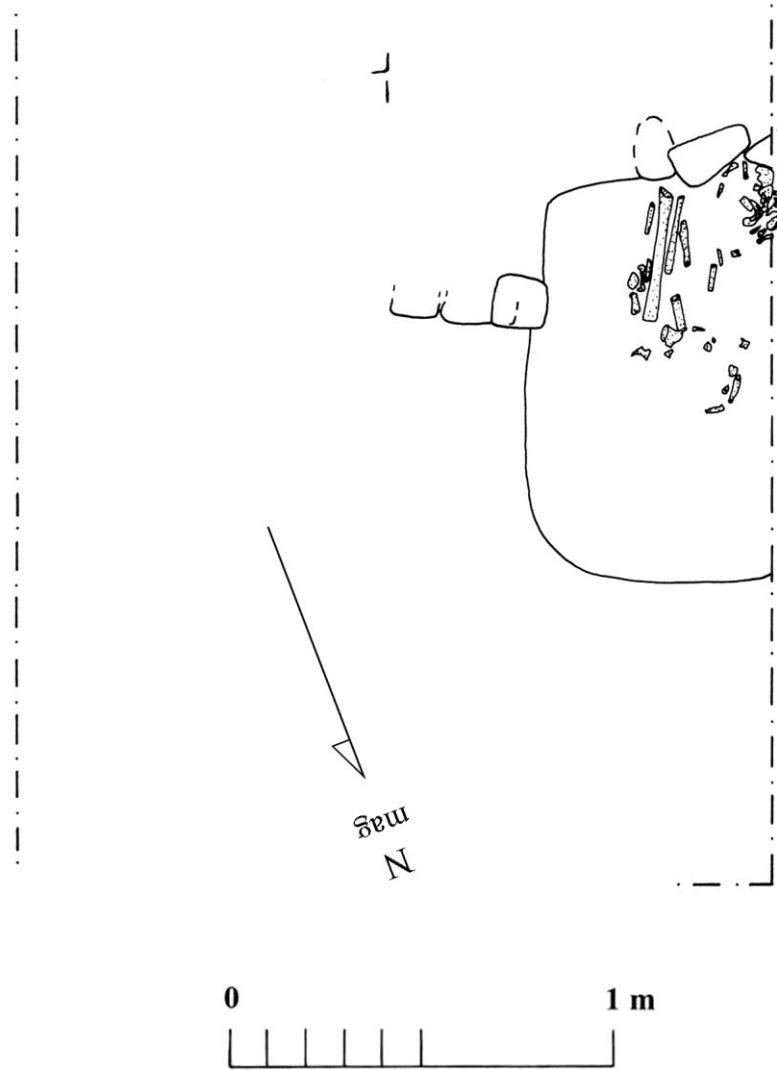


Figure 94: Plan of S.D. C187B-1.

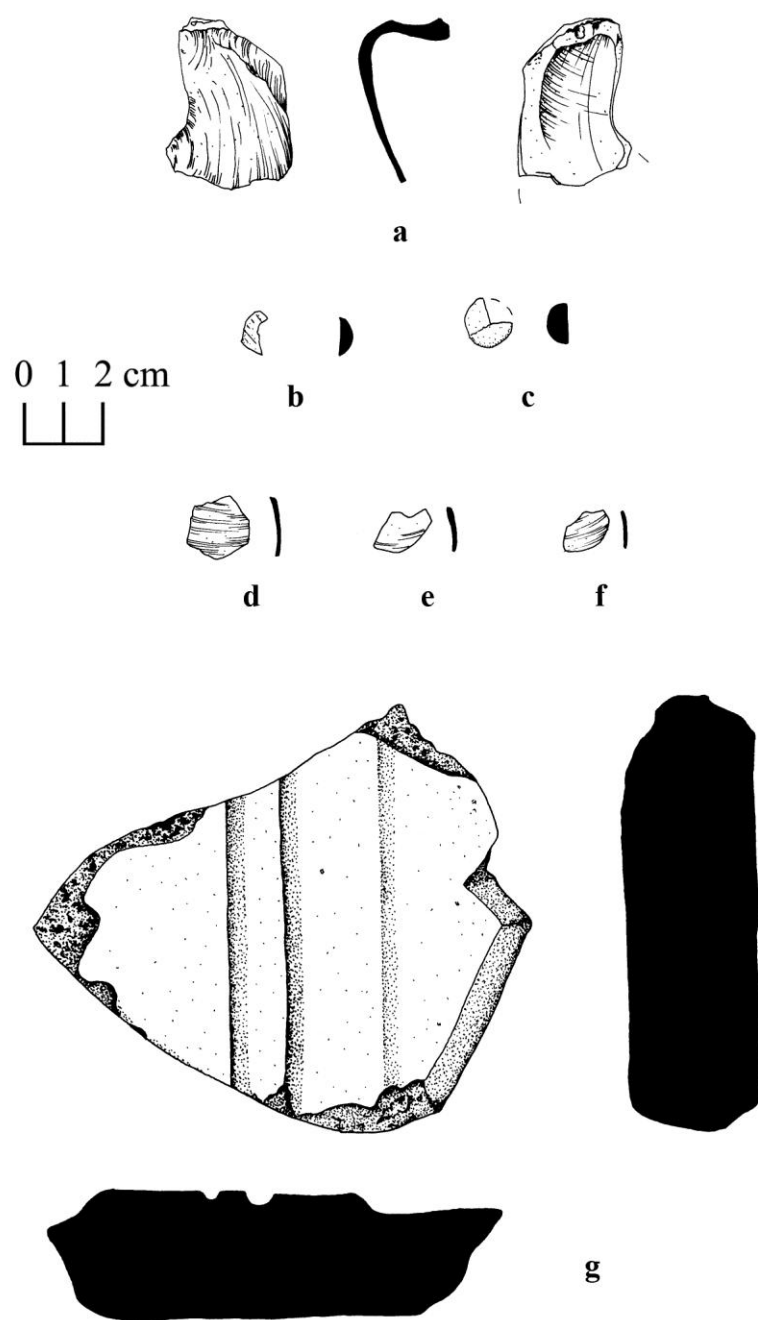


Figure 95: Artifactual material associated with S.D. C187B-1: a. spondylus shell; b., c. jadeite discs; d.-f. fragmentary marine shell; g. carved marbleized limestone (not associated with deposit).

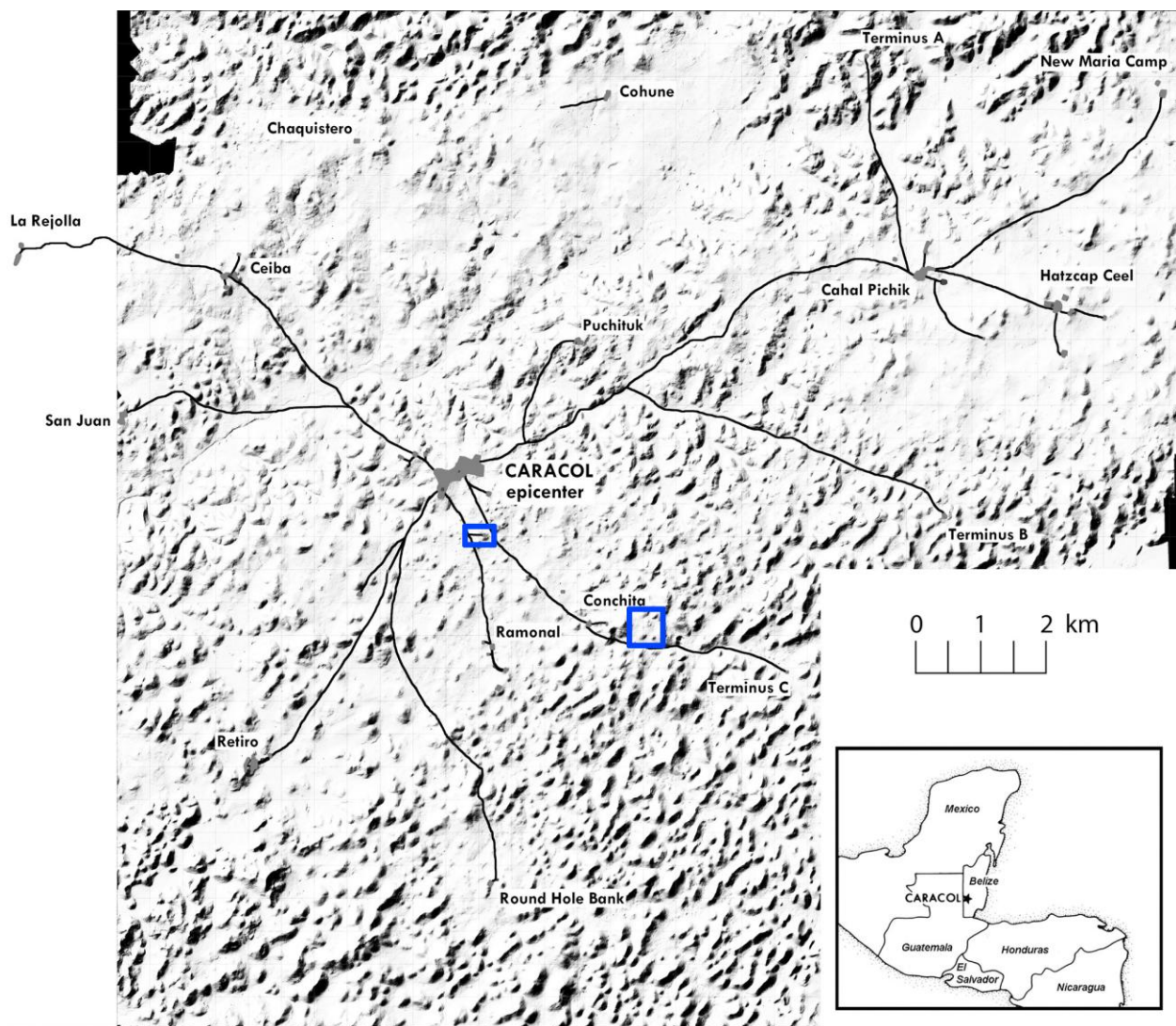


Figure 96: Caracol LiDAR DEM showing areas checked during 2011.



Figure 97: Photograph of small residential reservoir near Structure M22 checked against LiDAR during 2011.



Figure 98: Photograph of stabilization work undertaken at Northeast Acropolis during 2011.

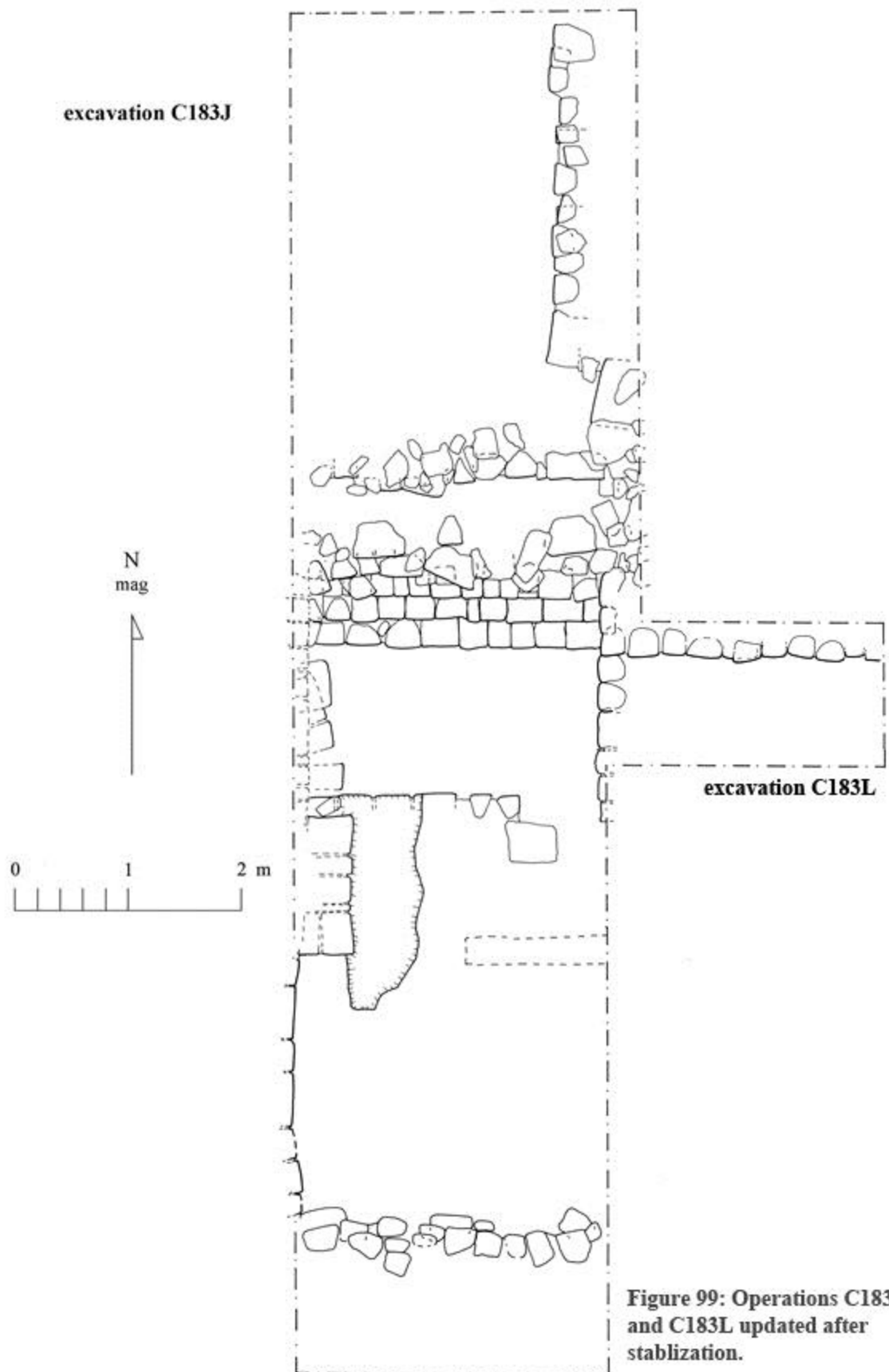


Figure 99: Operations C183J and C183L updated after stabilization.

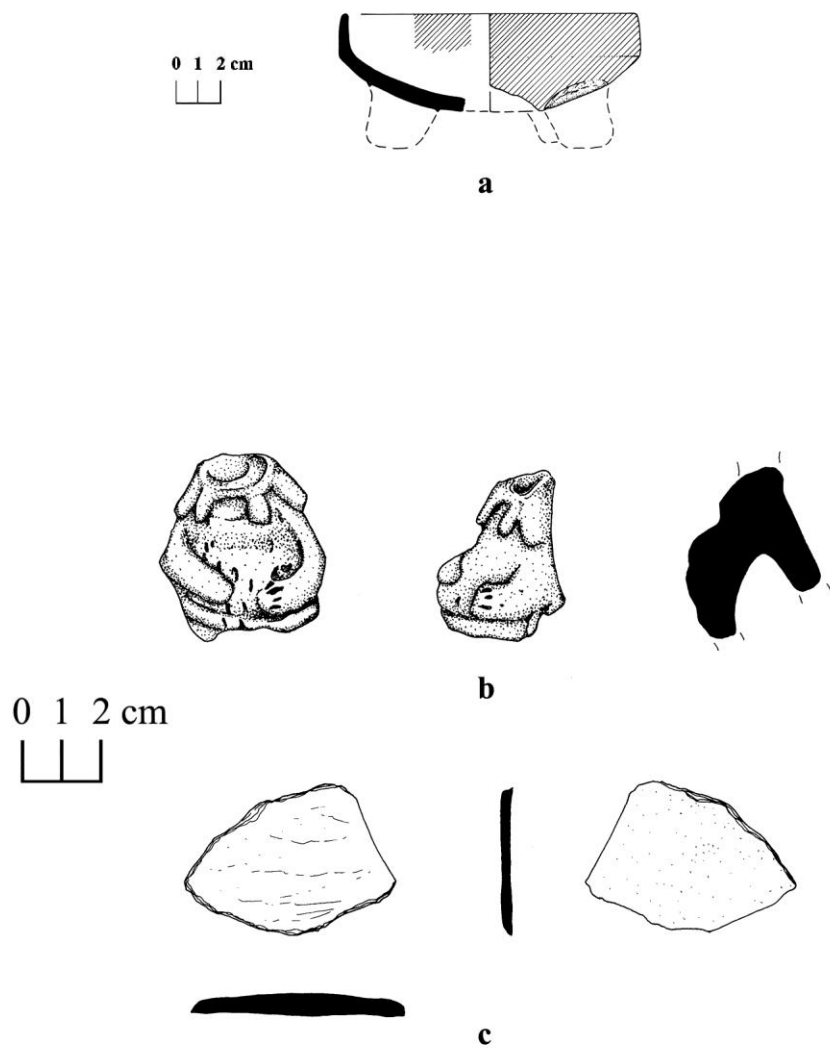


Figure 100: Artifactual materials from Northeast Acropolis collected by stabilizers: a. ceramic tripod bowl, probably Tinaja Red; b. ceramic figurine fragment; c. large chert flake.